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ANNEX

MARITIME GEOGRAPHY

AND

STATISTICS;

OR

A DESCRIPTION

OF THE

Ocean and its Coasts,

MARITIME COMMERCE, NAVIGATION,

&c. &c. &c.

"Le Trident de Neptune est le Sceptre du Monde."

By JAMES HINGSTON TUCKEY,

A Commander in the Royal Navy.

IN FOUR VOLUMES.

VOL. IV.

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MARITIME GEOGRAPHY.

POLYNESIA.

The innumerable islands that stud the Grand Ocean as the stars do the heavens, many of which are entirely solitary, while others form closely connected groups or chains, render it extremely difficult to produce a classification free from objection; that which seems most natural is to carry on the description by groups, following either a meridian or parallel, as nature has placed them, and noticing separately the scattered islands as we go on. As the greater number of these latter are mere coral reefs, with a more or less luxuriant vegetation, admitting of no variety of description, we shall confine ourselves to the useful, though barren, nomenclature and geographical positions.

The islands of the Grand Ocean seem naturally to be divided into those north of the equator, and those on the south of that line, and we shall, therefore, follow this division, commencing with the

NORTHERN POLYNESIA.

The following islands are situated between the Moluccas and Pelew Islands.

Lord North's Island 3° 02′; 131° 06′ E.

Johnstone's Island, discovered by Captain Meares in 1788, 3° 11′; 131° 12′ E. is of coral, one league in circuit, covered with cocoa palms, and inhabited by the Polynesian race.

Current Island, of Carteret, 4° 40′; 131° 41′ is a large rock covered with trees. St. Andrew, of Carteret, two small islands 5° 30′; 132° 16′

Pulo Alma and Pulo Mariere 4° 30′; 132° 0′

NEW PHILIPPINES.

The *Pelew* islands, the *Palaos* of the Spaniards who discovered them, were made known to the rest of the world by the shipwreck of the East-India Company's packet Antelope in 1788, the relation of which, composed by Mr. Keate, has given to these islands an interest much beyond what they would have excited under any other circumstances, none of them being above a league in circuit, and the whole surrounded by a coral reef, which extends from the islands six leagues to the west. They are moderately elevated, covered with trees, amongst which are the ebony, the bread fruit, and cocoa palm. The sugar cane is indigenous

indigenous here, and the natives make a confection of its juice. The woods abound in fowls, which were allowed to remain unmolested until the English taught the natives that they might be taken for food. Pelew Islands.

The natives are painted by Mr. Keate in the most agreeable colours, as a hospitable, gay, and innocent race. They are well made, of a deep copper colour, with long hair; the men go naked, but the women wear two pieces of fringe made of the fibres of the cocoa-nut husk; both sexes are tatooed, and stain their teeth black. Their houses are elevated off the ground three feet on stones, and are constructed of planks and bamboos; they have besides large halls for the holding public assemblies. Their utensils, instruments, and canoes, are similar to those of the Society Islands, and they make pots of clay. Fish is their principal food. The government is composed of a king, and *mupacks* or nobles, whose insignia of dignity is a bracelet of bone on the wrist: to the king belongs the whole territorial property of the islands, the subjects having no other riches than their canoes, their arms, and utensils. Their only idea of religion consists in the belief of the soul's surviving the body. Their language is the Polynesian or dialect of the Malay. The geographical position of these islands is latitude 6° 10′ N. 134° to 135½° E.

The Pelew Islands may be considered as the western limit of the great chain of New Philippines or Carolinas, which extend between the

New Philippines. latitudes 5° and 12° and the longitudes 135° and 170°. This great chain is very little known, but it seems to be formed of a number of groups, whose particular direction is north and south, like most of the chains of the Grand Ocean. These islands were first made known by the accidental arrival of a family of their natives at the Philippines in 1686, and who were driven thither by the winds and currents, in trying to pass from one island to another. The Spaniards first named them New Philippines and afterwards Carolinas, in honour of Charles II. of Spain. They are about eighty in number, all fertile, and the climate agreeable, but subject to terrible hurricanes.

The inhabitants are very numerous, and similar to those of the Pelew Islands. According to the relations of the Jesuits, each island is governed by a chief, but the whole acknowledge one king, who resides at the island Lamurca; the nobles tyrannize over the people. They have neither temples, nor idols, nor any appearance of religious worship, but believe that celestial spirits descend and bathe in a lake in the island Fallalo: those of Yap are said to adore a species of crocodile (probably the guana) and have conjurers. Polygamy is permitted. Their chief amusement is dancing to vocal music, for they have no instruments. Their arms are the bow and a knife headed with bone.

The only islands of this chain whose geographical positions have been ascertained with any accuracy, are the following.

The

The Matelots, a cluster of low coral spots, 6° 89′; 137° 38′. New Philippines.

Spencer's Keys, five similar coral islets joined by reefs, 8° 14′; 137° 30′.

Yap, the second in size, 10° 0′; 138° 30′.

Philip Islands, of Hunter 1791, 8° 6′; 140° 30′; two islets covered with shrubs, five miles asunder.

The low islands, two in number, 6° 30′; 146° 0′.

The Thirteen Isles of Wilson occupy a space of only four miles; six of them are covered with wood, the rest spots of coral. They are thickly inhabited, 150 canoes having been seen assembled with seven men one with another in each. The southern island is in 7° 16′; 144° 30′.

The Two Sisters, 7° 14′; 144° 5′.

Haven's Island, 7° 30′; 146° 28′.

Lamurca, 8° 25′; 140° 0′.

Twenty-nine Islands, discovered by the Spaniards in 1808, occupy a space ten leagues long, N.E. and S.W.; they are all low, well wooded, have plenty of fresh water, and are well inhabited. 9° 29′; 136° 21′.

The Seven Islands.

Strong's Island rises to a considerable mountain, 5° 12′; 162° 58′.

Experiment Island, 5° 20′; 163° 12′.

Hogoleu, the largest island of the chain, being thirty leagues long and fifteen broad, 9° 0′; 167° 45′.

Barings's Island, 5° 20′.

Bonham's Islands, several coral islets and reef

The

New Philippines.

enclosing a lagoon on the N.E.* are well inhabited, 5° 48′; 169° 56′.

Brown's Range, 11° 30′; 168° 40′.

Paterson's Group, a cluster of low islands, 8° 36′; 166° 39′.

Piscadores, of Wallis, 11° 15′; 167° 30′.

Musquito Group, 7° 30′; 168° 0′, a large cluster of coral patches.

Elmore's, two islands three miles asunder, 7° 14′; 168° 42′.

Lord Mulgrave's Islands form a long chain from N.N.W to S.S.E. and are composed of several groups of low coral islands, thickly wooded, and producing the cocoa and areca palms, oranges, &c. They extend between the latitudes 2° S. and 12° N. and generally seem to be well inhabited. The southernmost group is named Kingsmills.

Hopper's Island, on the equator, is ten leagues long N.E. and S.W. forming on the *west* side a great lagoon, 0° 3′ S. 173° 43′ E.

Henderville's Island, six miles S.W. of Hopper's, is six leagues long.

Dundas Island, 0° 9′ S. 173° 54′.

Hall's Island, long and low, 1° 0′ N. 172° 50′.

Cook's Island encloses a lagoon 1° 16′; 172° 53′.

Pitt

* This is almost a solitary instance of the concave side of a coral island facing the east.

Pitt Island, 2° 54′; 174° 30′. Lord Mulgrave Island.

Mulgrave Island, 5° 54′; 172° 39′.

Chatham Island, 9° 20′; 171° 20′.

Upwards of thirty other islands are counted in this chain, to all of which the English navigators have given names.

A few solitary islands dot the sea east of the Mulgrave chain, they are

St. Pierre, 11° 06′; 178° 50′ W.

Barbados, 9° 0′; 178° 30′ W.

Palmyra Island, only three leagues in circuit, encloses two lagoons on the west; on the east it is a steep coral bank, and on the west is lined by a reef of the same. On the N.W. is anchorage, but it appears to have no fresh water, and is uninhabited, 5° 49′ N. 162° 37′ W.

Christmas Island, of Cook, occupies with its reef fifteen leagues in circuit, and encloses a lagoon on the west, into which there is a channel through the reef, and anchorage outside of the latter. It produced only a few shrubs and about thirty cocoa-nut trees, when Cook visited it, and was uninhabited; here the navigator procured many turtle, and found it abound in fish. 2° 0′ N. 157° 40′ W.

LADRONES.

The Ladrones, or Mariannes, are a chain of sixteen islands, extending about north by east and south by west, from 13° to 20½° of lat. and between 144° and 146° E. long.

Several of the southern islands of this chain were discovered by Magellan in 1521, who named them Ladrones, from the thievish disposition of the natives; they were afterwards called Las Velas, (the sails) from the number of sailing canoes observed among them. In 1564 they were taken nominal possession of by Spain, but no establishment was formed on them till 1668, when a settlement was commenced at Guam, the southernmost island discovered by Magellan, and the name of Mariannes given them in honour of Mary-Anne of Austria, wife of Philip IV.

The island of Tinian, the third of those discovered by Magellan, is that of which we have the most detailed account from the voyages of Anson, Byron, Wallis, &c. According to the writer of the first of these voyages, this island is a perfect paradise, while the navigators who have since visited it, have been surprized and mortified at finding their high raised expectations entirely disappointed.

Doubtless we should make considerable allowance for the situation of Anson's companions, when they visited this island. Exhausted by the fatigues of a long navigation, and losing

upwards

upwards of twenty men a day by the scurvy, they here found abundance of fresh provisions and vegetables, which, in a week, as if by miracle, restored the most far gone to a state of rapid convalescence; it was therefore natural, that their thankfulness for this almost resurrection, should give a colouring beyond nature to their description of the island. Ladrones.

The English found it uninhabited, but laid out in regular plantations of various fruit trees, and containing certain monuments, or pillars, placed symmetrically, which denoted its having been occupied at no remote period by a numerous people, civilized to a certain degree. In fact, Anson learned, that fifty years before, this island reckoned 30,000 inhabitants, but that, at that period, an epidemic disease having swept away three-fourths of the population of the whole chain, the Spaniards established on Guam obliged the surviving Tinians to remove to that island to compensate the mortality.

According to Anson's relation, the island is twelve miles long and six broad; the land rises gradually from the sea to the centre of the island, and is agreeably diversified with wooded hills, vallies and plains. The soil is every where good, producing a much finer, and more luxuriant grass than is common in the torrid zone. The cocoa-nut, the bread-fruit, bananas, sweet and bitter oranges, the guava and the lime, were found in abundance, as well as water-melons and several antiscorbutic plants. The woods were free from

Latitude. from underwood, and the trees so far extended as to oppose no inconvenience to the traveller. Thousands of milk white buffaloes, with brown ears, wandered among the rich pastures, and were easily run down by the seamen; while every bush was occupied by fowls of the domestic kind, which were taken with such ease, that the crew were partly fed on them. The island also possessed vast numbers of wild hogs, which, however, from their ferocity, could only be mastered by the gun.

The island, though without running streams, is, according to the writer of this voyage, abundantly watered for domestic purposes by wells and springs; and in the middle of it are two lakes, whose banks are so level and regular, that they seem to have been formed by art, and which are covered with vast flocks of wild ducks, curlews, whistling plovers, &c.: but to compensate for all these good things, the island swarms with musquitoes, and other species of insects, which torment both man and beast. The climate is serene and healthy, the heat being moderated by constant breezes and by moderate rains. Such is the picture of Tinian, when visited by Anson in October, 1742. How very different from those of succeeding navigators!

Commodore Byron, in his voyage round the world, arrived at this island the first of August 1765, and did not quit it till the first of October. Impatient to enjoy the expected paradise, the commodore landed with several of his officers, and

and hastened to pass the first woods, with the certainty, that when beyond them Tinian would open upon them with all its beauties; but they found the trees so close, and so embarrassed by underwood, that it was with the greatest difficulty they penetrated through them, and not without lacerating their hands and feet. But when they had at last succeeded, what was their surprize? Instead of smiling meadows clothed with rich grass and clover, and enamelled with flowers, to find their view rest on arid plains, covered only with reeds and creeping plants, so interwoven, that it was next to impossible to make way through them, while clouds of flies obscured the air, and filled their mouths when they attempted to speak. The animals seemed to have undergone a change equally remarkable, for though the parties sent in search of cattle met with some, they were so wild, that they could seldom get within gun-shot; and when they succeeded in killing one, it was usually so far from the shore, that they were obliged to leave three-fourths of it in the woods, being unable to convey it to the ship before it became putrid. Wild hogs they however procured with less difficulty, as well as cocoa-nuts, guavas and bitter oranges, bread-fruit and papas in abundance, but they sought in vain for the watercresses and scorbutic plants of Anson. The wells at which the Centurion watered were now found to contain a nauseous brackish water, filled with worms. Byron's ship was filled with centipedes, scorpions, and venemous ants, supposed

Ladrones.

Tinian. posed to be brought on board in the fire-wood: and the climate at the season of his visit he considered as extremely unhealthy, for though his people recovered rapidly of the scurvy, many were carried off by fevers, produced by the immoderate heat and continual rains. Several persons of both Anson's and Byron's crews were nearly poisoned by eating the fish taken in the bay.

Captain Wallis, who visited Tinian in September 1767, has not given us a much more flattering account of it than Byron. The cattle were now only to be found on the north side of the island, and were approached with great difficulty, while the hogs were so wild, that they could seldom get within shot of them. Fowls and some fruits, particularly limes, were procured more easily, but no cocoa-nut trees were found within three miles of the shore.

The next English navigator who touched at Tinian was Captain Gilbert, in August 1788, and who, instead of the Land of Promise of Anson, found it still worse than Byron had described it. He also indeed procured some wild hogs, fowls, and fruit, and though he saw wild cattle, he could never approach the full grown ones, and was therefore obliged to be content with some calves. The Centurion's wells were now entirely dry, and none of those springs were met with which Anson crossed at every step. The flies had not become less innumerable, nor less troublesome.

The last account we have of the Island of Tinian

Tinian is from an English officer,* who visited it in December 1789. He found the country equally impenetrable and the cattle equally wild as his precursors. Anson's wells now contained water, which, though "not the best in the world," was neither brackish nor full of worms as Byron found it. With the greatest difficulty some individuals penetrated into the interior of the island, found the monuments described by Anson, and which had not been discovered by the succeeding navigators, and which there can be no doubt were constructed by the aborigines of the island. They had suffered little or no alteration since the visit of Anson, and consist of two rows of pyramidical columns, each crowned with a demi globe, of which the plane surface is upwards. It is difficult to ascertain whether they are of stone or a composition, but probably the former. The dimensions of one of them are,

	Ft.	In.
Perpendicular height of the pyramid ...	14	0
Breadth at the base	5	4
Diameter of the demi globe	5	10

However changed may be the island of Tinian in other respects since Anson's visit, all the succeeding navigators agree with him in the badness of its only road, which is on the south west side; the bottom is coarse sand and coral, affording no hold to the anchors, and cutting the cables, unless

* G. Mortimer, Lieutenant of Marines, Observations, &c. made during a voyage to the island Tenerife, Tinian, &c.

Ladrones. less buoyed up. Anson parted two cables, and was driven to sea with a third anchor hanging to his bows; and a second time dragged both anchors after him. Byron was obliged to put to sea in consequence of the heavy swell; and the ships of Captains Gilbert and Seaver (who visited the island the same year) were obliged to cut and put to sea.

According to Anson, the road is only dangerous between the middle of June and middle of October, when the winds often blow all round the compass, with great violence, and when from the west, throw in a heavy swell. According to Byron, the month of October is the most dangerous.

Guam is the largest of the Mariannes, and the only one on which the Spaniards have any settlement. It is forty miles in circuit, and contains about 10,000 inhabitants, in seven or eight villages, besides the Spanish town, named Agana, which is on the N.W. side of the island, four miles up a river, and the approach defended by a battery of eight guns. The road before the river is only safe in summer.

The other islands of this chain are, with the exception of two or three, uninhabited. Their names from south to north are Sapan, Aguijan, Saypan, Antajan, Sarignan, Guguan, Pagon, Gugan, Assumption, a vast conical mass of lava, and Uraccas.

The Ladrones have been celebrated by their European visitors for the perfection of their sail-

ing

ing prows or canoes, which have one side *plane* and the other convex, and are said to sail at the rate of twenty miles an hour. Ladrones.

North of the Mariannes a volcanic archipelago extends almost to Japan, forming two distinct chains from south to north. In the westernmost chain are the following: Vela, or the Sail. Sulphur Island, of Cook, named from the smell of that mineral observed near it, is five leagues long N.N.E. and S.S.W.; the south point rises in a high barren hill, flat at top, which appears to be a volcano, and a low narrow isthmus connects this hill with the body of the island. It is extremely barren, producing only a few bushes, 24° 48′; 141° 12′ E. Seven leagues north of Sulphur Island is a conical island, and another the same distance south: they were called by Cook, North and South Islands.

The Archbishop's Islands are the northern continuation of this chain, and are little known.

The eastern chain contains many volcanoes, three of which follow each other on the south. Lobos Island is in 24° 50′; 146° 51′. Grampus Islands, of Captain Meares, 1789, are a group, one of which is five leagues long north and south, rising to a high mountain, with little wood, and beaten by a violent surf, which seems to render landing impossible. 25° 10′; 146° 0′.

Margaret's Island 27° 30′; 145° 40′.

Malabrigo,

Malabrigo, Guadalupe, St. Mathew, and Pan de Piros, are Spanish discoveries, whose situations are not certainly known.

East of the chains of Marianne and volcano chains above noticed, are many scattered islands, whose general direction is N.W. and S.E.; they are

The Gardens, two clusters of coral islets on reefs. 21° 35′; 151° 30′.

St. Bartholomew	15°	10′	163°	41′ E.
Gaspar Rico	15	12	171	18
Wake's Rock	17	48	173	45
Wake's Island	19	0	166	48
Desert Islands	20	30	168	0
Lamira	20	24	166	42
Camira	22	0	163	0
Volcano	22	40	163	0
Desert Islands	23	30	163	30
Anson's Island	23	30	160	—
Sebastian Lopez	25	24	156	30

Lot's Wife, of Meares 1789, is a singular rock, rising perpendicularly to the height of 350 feet, resembling a first rate ship of war under sail. On the S.E. side is a cavern, into which the sea rushes with a frightful noise. 29° 51′; 160° 0′.

Rica del Oro and Rica de Plata, or Gold and Silver Islands, placed in the charts in these regions, if they exist, probably owe their names to the fables of the Japanese.

Lisiansky Island, discovered in the Russian ship Neva, is a spot of dry sand two miles in circuit, on a coral reef; it is covered with grass and creeping

creeping plants, but without trees or fresh water, 26° 21′; 173° 42′ W.

Krusenstern's Breakers, seen in the same ship, are in 22° 15′; 175° 37′ W.

SANDWICH ISLANDS.

The SANDWICH ISLANDS, discovered by Captain Cook in 1778, are eleven in number, lying between the latitudes of 18° 54′ and 22° 0′ N.; and between 156° and 160° W. longitude. They form the most isolated and the north-eastern group of Polynesia. There is reason to suppose, that these islands are the *isles of the Kings* of Gaetan 1542; and also the *los Majos* or *Monjes* of other Spaniards.

Owhyee, the south-easternmost and largest, is nearly an equilateral triangle, the greatest length of which, north and south, is twenty-eight leagues and a half, and the greatest breadth, twenty-four leagues. The whole island is composed of mountains, of which two are particularly conspicuous. Mount Kaah, on the N.E., rises to three peaks, which can be seen forty leagues, and its summit is crowned with snow throughout the year, whence, calculating by the tropical line of snow, its elevation must be 15,000 feet. The elevation of Mount Roa, on the south coast, is not much less.

The coasts of this island, from the N.W. point to the south point round by the east, are without

any anchorage; the shore is composed of perpendicular rocky cliffs, with intervening little sandy bays, affording landing to the natives' canoes only. Many runs of fresh water tumble over the cliffs into the sea.

The N.E. coast is barren and uncultivated, as well as part of the south coast, which appears to have undergone the most severe effects of volcanic fire, and has no soundings, with 200 fathoms of line, close to the cliffs. The N.W. coast, on the contrary, is fertile and well cultivated.

This island has several bays, with good anchorage; of which that of Karakakoa, on the west, though not the best, is the most frequented by European ships, and is mournfully celebrated by the tragical end of Captain Cook.

Mowee is eight leagues N.N.W. of Owhyee, and is divided into two circular peninsulas, united by a low isthmus. Both peninsulas are mountainous. The length of the island is forty-four miles, and its greatest breadth twenty. Several parts of this island seem also to have suffered from volcanic fire.

The north shore has no soundings close to the cliffs that rise perpendicular from the sea. La Perouse describes the first aspect of this island as beautiful, streams of water tumbling in cascades from the tops of the mountains, and the shore covered with habitations, so as to form a continued village for three or four leagues; the proportion of habitable ground is, however, very small.

Near the N.W. point of the island is Rahaina, the

the best anchorage. Woahoo Bay, on the middle of the west side, and Fairhaven on the same side, also afford good anchorage and fresh water.

Tahoorowa, a small barren island, without wood, ten miles long, four miles broad, and nine miles from the S.W. point of Mowee.

Morokinnee, a large barren uninhabited rock, between Mowee and Tahoorowa.

Morotoi, two leagues and a half west of Mowee, is thirty-three miles long, and fifteen miles broad. It is, like Mowee, divided into two peninsulas; the easternmost of which is very high, and the westernmost moderately so. It has no wood, and little fresh water. There appears to be no good anchorage round this island. Half a league from its east point is a barren, rocky, islet, named Modovenite.

Ranai, three leagues south of the east end of Morotoi, fifteen miles long and six miles broad, is barren and thinly inhabited.

Woahoo, seven leagues N.W. of Morotoi, is thirty miles each way. The north and west sides have a much more fertile appearance than any parts of the coasts of the other islands; but its south side is extremely barren. On the east is an extensive bay, bounded on the south by a long point of land, off which, at one mile distant, is a high rock.

On the south is Whiteeté Bay, affording the best anchorage, and having good water, but as the reef which lines the shore renders the landing bad, the best method of watering is to get the na-

tives to bring it to the boats in calabashes, which they will do for a trifle.

West of Whiteeté is Opouroah, a lagoon, entered by a break in the reef, which lines the shore. The lagoon ends in two little coves, and would form an excellent harbour was it not for the narrowness of the entrance.

On the N.W. side of the island is also a bay, with good anchorage, and a rivulet, in which the water is brackish for 100 yards from the beach, and is otherwise inconvenient to be got at.

Atooi, or Otooway, N.W. twenty-five leagues from Woahoo, is thirty-three miles long and twenty-two broad. The west, north, and N.E. sides are broken and uneven; on the south, the hills rise with a gentler ascent from the sea, and the land is more even.

Wymoa Bay, on the S.W., affords the best anchorage among the whole group, though it is rather exposed to the prevailing winds; for the high land causes the trade wind to change its direction on this side of the island to S.E. and E.S.E. The bottom is clean, and wood and water easy to be procured.

The inhabitants of Atooi are the most advanced in the art of cultivation of any of those islanders, their plantations being fenced with neat hedges, and traversed by well kept pathways The currents bring to this island large pines, of which the natives make canoes.

Oneeheaw, five leagues west of Atooi, is twelve miles long and six broad. The east coast

is

is high and perpendicular, the other low, except the S.E. point, which is high and bluff. Yam Bay, on the N.W., is the best anchorage.

Oneehtua, or Origoa, a little rocky, barren, and uninhabited island, is separated from the north side of Oneeheaw by a channel one mile broad, which does not appear to have water for ships.

Tahoora, or Tagoora, the westernmost island of the group known to Captain Cook, is barren, high, and uninhabited.

Bird Island, the Madoopapa of the natives, sought for in vain by Captain Cook, was discovered in 1789 by Captain Douglas; it is only three miles in circuit, rising in two hills. The south side is covered with verdure, but all the rest is a naked rock. 23° 8′; 161° 45′.

Necker Island, discovered by La Perouse, is a great rock 1,000 yards long and sixty high, whitened with birds' ordure. 23° 34′ 164° 32′.

The French Frigate Bank, a shoal, discovered by the same navigator, in 23° 45′ N. 165° 50′ W. is the western limit of the Sandwich Islands.

The climate of the Sandwich Islands differs little from that of the West Indies, lying in the same latitude, and this difference seems to be in favour of the former. The medium of the thermometer, at noon, from January to March, was 83°, and the greatest rise 88° in Karakakoa Bay. In Wymoa Bay the medium was 76°, a difference probably produced by the latter being exposed to the sea breeze.

The winds during the winter months are generally between N.E. and E.S.E., according as the trade is affected by the position and elevation of the land; and land and sea breezes are pretty regular.

The currents seem to be very mutable, and not to be governed by general causes, setting often to windward, and as often to leeward. The tide ebbs and flows regularly every six hours, the flood from the east, and the greatest rise is two feet seven inches.

The quadrupeds are confined to hogs, dogs, and rats; the former are a large and heavy breed. The dogs, similar to those of all the other islands in the Pacific, are the size of a common turnspit, with short crooked legs, long backs, and pricked ears: they are kept by the natives entirely for food.

The birds are numerous and beautiful, though not various, sixteen species only being enumerated in Cook's voyage, and of these, five only are common in Europe, *viz.* raven, owl, plover, pigeon, and the common water hen. The rest are of the smaller species. The islands are said to have no venemous reptiles.

The cultivated vegetable productions are entirely similar to those of the other islands of the Pacific; and agriculture is carried to great perfection, the yams, sweet potatoes, taro, &c. being planted in regular lines, and the plantations separated by walls of loose burnt stones, which, being concealed from

from the eye by sugar-canes thickly planted on each side, make most elegant fences. Sandwich Islands.

The natives of these islands are of the great Polynesian family. Both sexes are darker than the Otaheiteans, and the women less delicately formed, while the men are inferior in activity and strength to the Friendly islanders; there seems also to be more deformed persons amongst them, some hump-backs, and many cross eyed people being seen. They are subject to boils and ulcers, which Capt. King supposes to proceed from the great quantity of salt they eat with their food; and the upper class suffer dreadfully from the effects of the *kava*.

The food of the lower class consists of fish and vegetables, to which the higher orders add hogs, dogs, and fowls; they give the preference to meat and fish highly salted. The women here, as at the Society Islands, eat apart from the men,* and are forbidden the use of pork, turtle, and some kinds of fish and plantains. Contrary to the general custom of the Polynesians, these islanders neither tatoo the skin nor wear ear-ornaments.

The employment of the women consists in making their cloth, and the men of the first class, in building their canoes and making mats. The *towtows*, or common people, are usually employed in cultivation and fishing. Besides the art of agriculture and manufacture of cloth and mats,

* This unsociable custom is said to be confined to the interior of the Islands, women and men eating together in the fields and in the canoes.

Society Islands. they make a great quantity of salt, by conducting the sea water into pans, and allowing the sun to evaporate it.

In the lower class of women chastity seems to be as little esteemed as amongst the Otaheiteans, but in every other respect their moral character bears no comparison. There is here no abominable society of Arreoys. Infanticide is unknown, but on the contrary the women are extremely attentive to their children. Human sacrifices were, however, on the discovery of the islands, as frequent, if not more so, than among the Society Islands, and the *towtows* of both sexes were liable to be knocked on the head by order of the chief. The only law is that of the strongest, and the king and chiefs have unlimited power over the lives and properties of the subject. They divide the year into twelve moons, and the moons into thirty days, having a name for each.

Their religion extends to the belief in a future state of reward, and they offer sacrifices to the divinities of peace, war, joy, &c. On the death of the king twelve of his subjects, who have voluntereed to accompany him to the other world, are sacrificed, and on this event all the people go naked for a month, and a promiscuous and undisguised intercourse of the sexes takes place during that time. Their mourning consists in cutting the flesh, cutting off the hair, and pulling out a tooth.

Since Capt. Cook discovered these islands, an astonishingly rapid civilization has taken place amongst

amongst the natives, by their intercourse with Europeans. In 1791, Capt. Vancouver laid down the keel, and prepared the frame work of a vessel for the king of Owhyee, whose size was thirty-six feet by nine and a quarter. Ten years after, this chief had increased his navy to twenty vessels of different sizes, from twenty-five to fifty tons, and some of them coppered, chiefly built by Americans. In 1805, his largest vessel was seventy tons, and he was well supplied with naval stores. Many of his people, from making frequent voyages to the North West Coast of America, and in the South Sea whalers, have become expert seamen, and they talk of opening a direct trade in their own vessels with China;—the island producing pearls, pearl-shell, and sandal-wood, all valuable in the China market. The king has a fortification round his house, mounting ten guns, and a guard of two hundred native soldiers, well disciplined, and perfect in the use of fire-arms, who do regular duty night and day. He has besides two thousand stand of arms, and upwards of twelve thousand Spanish dollars, together with other valuable articles, which he has collected in trade, and deposited in regular store-houses. Some horned cattle left at Owhyee by Captain Vancouver have greatly multiplied, and now form several wild herds.

Sandwich Islands.

SOUTHERN POLYNESIA.

We shall commence our account of the *Southern Polynesia* with the notice of some scattered islands, which cannot be brought within any group.

Matooty, 8° 30′; 168° 0′.

Barwell, Mitre, Cherry, and Pandora Islands, form a group at considerable distances from each other, south east of the archipelago of Santa Cruz.

Taswell and Sherson islands, in 5° 37′, 176° 9′, are two low islands covered with cocoa palms; it is probable they are the St. Augustin and El Grand Cocal or Cocos of Mendana.

Gilbert's Island, 11° 0′; 177° 0′.

Rotumahon is the *Tamacoo* of Quiros. The fertility and population of this little spot is extreme; in the space of a mile in length Capt. Wilson counted two hundred houses, and found hogs, fowls, and fruits in the greatest abundance. This island is four leagues long east and west, and moderately high. 12° 30′; 177° 0′ E.

Duke of York's Island of Byron is ten leagues in circuit, enclosing a lagoon on the west, where boats can land; but there seems to be no anchorage, and no inhabitants were seen by Byron. 8° 29′; 172° 22′ W.

Duke of Clarence's Island. 9° 11′; 171° 30′.

Isles of Danger, of Byron, are three small ones laying north-east and south-west nine miles; they have neither anchorage nor landing, being surrounded

rounded by a reef and coast; nine leagues from them are breakers.

The Fidjee or Prince William's Islands of Tasman are extremely numerous, fifteen to twenty being counted by the missionary ship Duff; they are of moderate height, covered with cocoa palms, and surrounded by extensive and dangerous reefs. The natives are more industrious than the Friendly Islanders, but are thought to be cannibals. To them on the east succeeds the group to which Cook gave the name of FRIENDLY ISLANDS, consisting of sixty-one, but many of them are merely spots of coral and sand, cloathed with vegetation.

Friendly Islands.

The four principal ones examined by Cook, are, Tongataboo, Annamooka, Haapee, and Eooa.

Tongataboo, *i. e.* Sacred Island, the Amsterdam of Tasman, is the largest of the group, being twenty leagues in circumference E. S. E. and W. N. W. The south, east, and west shores are formed of steep coral rocks ten to twelve feet high, with intervals of sandy beach, on which, at low water, a line of black rocks is observed. The north shore is level with the water, bordered by a sandy beach, and lined with shoals and islets.

The whole island is low and level, and its appearance conveys an idea of the most exuberant fertility, the entire surface being covered with verdure, and amongst the trees the cocoa palm raises its head pre-eminent; unhappily, however, the island is deficient in fresh water, and what there is, in general, is very indifferent.

Though the coral rock, which forms the base

of

Friendly Islands. of the island, is in many places naked, the soil in other parts is of considerable depth, and is in the cultivated grounds, a black vegetable mould over a sub-stratum of clay. In the lowest ground the soil is a mere coral sand, but still covered with vegetation.

The only stones, except coral, observed on the island, are small blue pebbles, and a smooth black stone, *lapis lydius*, of which the natives make their hatchets; but it is not certain that both these are not brought from other islands.

To give a general idea of the dwelling of the natives, we select the description of a village from Capt. Cook:*

"It is delightfully situated on the bank of the inlet, where all, or most of the principal persons of the island reside, each having his house in the midst of a small plantation, with lesser houses and offices for servants. These plantations are neatly fenced round, and, for the most part, have only one entrance. This is by a door fastened on the inside by a prop of wood, so that a person has to knock before he can get admittance. Public roads and narrow lanes lie between each plantation, so that no one trespasseth upon another. Great part of some of these inclosures is laid out in grass-plats, and planted with such things as seem more for ornament than use; but hardly any were without the kava-plant, from which they make their

* Vol. I. page 282, third voyage.

their favourite liquor. Every article of the vegetable produce of the island abounded in others of these plantations; but these, I observed, are not the residence of people of the first rank. There are some large houses near the public roads, with spacious smooth grass-plats before them, and uninclosed. These, I was told, belonged to the king; and, probably, they are the places where their public assemblies are held." Friendly Islands.

This island has the best harbour of the group, within several islands and reefs on the north side.

Annamooka, Rotterdam of Tasman, is more elevated than the small islands which surround it, but still can be considered only as a low island. In the centre is a salt lake one mile and a half broad, round which the land rises with a gradual ascent, and its surface is covered with wild ducks. The north shore is composed of steep coral cliffs nine or ten feet high, with some intervals of sandy beach. There is no stone but coral on the island, except a single rock twenty to thirty feet high of a yellow calcareous and very hard stone. The population Capt. Cook estimated at two thousand. The water on the island is better than that at Tangataboo, but yet is indifferent: the best is procured by digging holes near the side of the lake. Fruit is more abundant on this island than on the former, and the undulating surface gives it a more pleasingly varied appearance.

Haapee, though considered by the natives as one island, is in reality composed of four very low islands, about half a mile distant from each other, laying

Friendly Islands. lying N.E. and S.W., but all joined by coral reefs which dry at low water. The whole occupies a space of nineteen miles in length, and each island is about six or seven miles long, and two to four miles broad. Lefooga is well cultivated and inhabited. Hoolaiva, on the contrary, is entirely desert and abandoned. On each of these islands is an artificial mount, said by the natives to be erected in memory of some of their chiefs. The only water either of these islands possesses is from very brackish wells.

Between Happee and Annamooka, the sea is sprinkled with islets and reefs, two of which only deserve notice, Teofoea and Kao. The former is a volcano, which, according to the natives, sometimes throws out large stones, and while Capt. Cook was here, smoke and flames issued from it. It is inhabited.

Kao is N.W. two miles and a half from Teofoea, and is a vast rock of a conical figure. The other islands in the vicinity are mere coral reefs from one to half a mile in circumference, but all covered with verdure, and particularly cocoa palms.

Eooa, or Middleburg of Tasman, may be considered as an elevated island, in comparison with the generality of those of these seas, being visible twelve leagues. The highest part is on the S.E. and is almost flat, from whence it declines very gently towards the sea, and presents an extensive prospect, where groves of trees are only interspersed at irregular distances, in beautiful disorder, and the rest of the land covered with grass. Near

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the shore it is quite shaded with trees, amongst which are the habitations of the natives. Friendly Islands.

Capt. Cook thus describes the interior of the island.*—"About half way up the highest part of the island, we crossed a deep valley, the bottom and sides of which, though composed of hardly any thing but coral rock, were clothed with trees. We were now about two or three hundred feet above the level of the sea, and yet even here, the coral was perforated into all the holes and inequalities, which usually diversify the surface of this substance within the reach of the tide. Indeed, we found the same coral till we began to approach the summits of the highest hills; and, it was remarkable, that these were chiefly composed of a yellowish soft sandy stone. The soil there is in general a reddish clay, which in many places seemed to be very deep. On the most elevated part of the whole island we found a round platform, or mount of earth, supported by a wall of coral stones, to bring which to such a height must have cost much labour. Our guides told us, that this mount had been erected by order of their chief, and that they sometimes met there to drink kava; they called it *etchee*, by which name an erection, which we had seen at Tangatuboo, as already mentioned, was distinguished. Not many paces from it was a spring of excellent water; and, about a mile lower down, a running stream, which,

* Third Voyage, Vol. I. page 361.

which, we were told, found its way to the sea when the rains were copious. We also met with water in many little holes, and no doubt, great plenty might be found by digging.

From the elevation to which we had ascended, we had a full view of the whole island, except a part of the south point. The south east side, from which the highest hills we were now upon and not far distant, rises with very great inequalities immediately from the sea, so that the plains and meadows, of which there are here some of great extent, lie all on the north-west side, and as they are adorned with tufts of trees, intermixed with plantations, they form a very beautiful landscape in every point of view. While I was surveying this delightful prospect, I could not help flattering myself with the pleasing idea that some future navigator may, from the same station, behold these meadows stocked with cattle, brought to these islands by the ships of England, and that the completion of this single benevolent purpose, independently of all other considerations, would sufficiently mark to posterity, that our voyages had not been useless to the general interests of humanity. Besides the plants common on the other neighbouring islands, we found on the height a species of acrosticum, melastoma, and fern tree, with a few other ferns and plants not common lower down."

This island had not yet got dogs on it when Capt. Cook visited it. On the north-west side is English road, where boats may land at all times

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in a small creek. Among the rocks which line the shore of this road, is a brackish spring, from which, probably, fresh water may be procured, before the tide mixes with it; and on the same side, a little way inland, in a deep chasm, Captain Cook found very good water, but which required time and trouble to be conveyed to the beach. Friendly Islands.

Komango has a pretty large pond of tolerable water, but no appearance of a running stream.

Kootoo is two miles long, and nearly the same breadth. Its north-west end is low, but it rises suddenly towards the middle; and on the south-east, it terminates in reddish clayey cliffs. It is cultivated and inhabited. Its only water is from dirty and brackish ponds.

From the situation of the Friendly Islands towards the tropic, the climate is more variable than nearer the equator. The winds are usually from some point between south and east, and when moderate, the weather is fair, but when fresh, there is often rain. They sometimes veer to the north, and even N.W., with hot sultry weather and heavy rain; but these winds never last long, nor blow fresh.

All the vegetable productions are evergreens: of cultivated fruits, the principal are plantains, of which there are thirteen varieties; the bread-fruit, the *jambu* and *ellvee*, the latter a kind of plum, and the shaddock. Besides cocoa-nuts, they have three other kinds of palms. There is also a species of wild fig, which is sometimes eaten.

Friendly Islands.

eaten. The other cultivated vegetables are sugar-cane, bamboo, gourds, turmeric, yams of two sorts, one black and very large, the other white and small. A large root, called *hoppe*, and one not unlike our white potatoe, the *manioc* and the *jee jee*.

The only quadrupeds, besides hogs, are a few rats, and some dogs, which are not originally natives of this group, but were introduced by Captain Cook in his second voyage, and some were also brought from the Fidjee Islands. A large breed of fowls is found in a domestic state.

The birds are, parrots and parroquets, owls, cuckoos, kingfishers, and a bird the size of a thrush, which is the only one that sings, but which compensates the want of others by the strength and melody of its notes. The other land birds are rails of two kinds, one as large as a pigeon, the other not bigger than a lark; coots, fly-catchers, a very small swallow, and three sorts of pigeons, one of which is the bronze winged. The water fowl are, ducks, blue and white herons, tropic birds, noddies, two species of terns, a small curlew, and a large plover spotted with yellow. There are also the large bat, or flying fox, and the common sort.

The only noxious or disagreeable reptiles and insects are, sea snakes, scorpions and centipedes, guanas, and small lizards. Amongst the insects are beautiful moths, butterflies, very large spiders, making in the whole about fifty species.

The

The sea abounds with fish, though of few varieties. The most common are, mullets, parrot fish, silver fish, old wives, soles, leather jackets, bonitas and albacores, eels, sharks, rays, pipe fish, a fish resembling the pike, and devil fish. Friendly Islands.

The reefs and shoals are covered with an endless variety of shell-fish; among which are the true hammer and pearl oyster, and several other kinds, but more of the common sort, panamas, cones, and the gigantic cockles. There are likewise several sorts of sea eggs, star fish, crabs, and cray fish, and a considerable variety of corals; amongst which are two red kinds, the one elegantly branched, the other tubulous; several sorts of sponge, &c.

Good water is scarce in all these islands. It is indeed to be found in most of them, but either in too small a quantity, or in situations too inconvenient, to serve the purpose of navigators.

The natives of the Friendly Islands seldom exceed the middle size, but are strong and well made; their features are very various, and among them are many true European countenances and Roman noses. Their eyes and teeth are good, but the latter are not very white or well set. The women are not so much distinguished from the men by their features as by their shape, which is much more delicate; and though there are some very beautiful females to be met with, they are not common.

The general colour is a shade deeper than the copper brown, but many of both sexes have an olive

olive complexion, and some of the women are even much fairer. Their hair is, in general, straight, thick, and strong, though a few have it bushy or frizzled. The natural colour is black, but most of the men and some of the women have it stained of a brown or purple colour, and a few of an orange cast. Their countenances express cheerfulness, mildness, and good nature, though sometimes in the presence of their chiefs they assume an air of gravity, which, however, is evidently foreign to their general character.

The graceful air and firm step with which they walk, are obvious proofs of their personal accomplishments, and their moral qualities are not less conspicuous. They are frank, good humoured, industrious, ingenious, persevering, and above all, hospitable to strangers, with whom they court an intercourse by barter, which they understand perfectly.

Both sexes and all ages have, however, the strongest propensity to thieving from strangers, which is perhaps more owing to the desire of satisfying their curiosity, than to any natural principle of dishonesty, for thefts among themselves seem to be very uncommon.

There are few natural defects or deformities to be found amongst them, nor do they appear subject to numerous or acute diseases. Amongst those with which they are occasionally afflicted, are a sort of blindness, caused by a disease of the cornea, the ringworm, and an indolent swelling of the legs and arms.

They

They wear their hair in various manners, some cutting it short, others letting it grow, others again having one side long and the other side short, and sometimes entirely shaved, except a single lock on one side. The men cut their beards short, and both sexes eradicate the hair from under the arms. The men are tattooed from the middle of the belly half way down the thighs, with a blue colour. The women have some spots on the inside of their hands only tattooed, and the kings are exempted from this custom. Friendly Islands.

The dress of both sexes is the same, and consists of a piece of cloth or matting wound once and half round the waist, where it is confined by a girdle or cord; it is double before, and hangs down like a petticoat, to the middle of the leg; the upper part above the girdle, is formed into several folds, so that there is sufficient cloth to draw up and wrap round the shoulders. The size of this garment is in proportion to the consequence of the wearer, the inferior class being content with very small ones, and often wear nothing but a piece of narrow cloth, or matting like a sash, and called a *maro*, which they pass between the thighs, and wrap round the waist, but the use of it is chiefly confined to the men. In their great entertainments they have dresses made for the purpose of the same form, but covered with red feathers. Both men and women shade their faces from the sun with little bonnets of various materials.

The ornaments of both sexes are necklaces of

Friendly Islands.

the fruit of the *pandanus*, and various sweet smelling flowers, of small shells, sharks' teeth, and other things. On the upper part of the arm they sometimes wear a polished mother of pearl shell ring, rings of tortoiseshell on the fingers, and a number of these joined together as bracelets. The lobes of the ears, though most frequently but one, are perforated with two holes, in which they wear cylindrical bits of ivory or reed, three inches long, thrust in at one hole and out at the other. The women rub themselves all over with the powder of turmeric.

They frequently bathe in the fresh water ponds, though the water in most of them stinks intolerably, and these they prefer to the sea-water which they think hurts their skin. They rub their bodies all over, and particularly their heads, with cocoa-nut oil, which preserves the skin smooth and soft.

Their mode of life is a medium between indolence and labour. The climate, and the natural fertility of the soil, renders the latter unnecessary, and their active dispositions is a bar to the former.

The employments of the women are generally confined to domestic concerns, and the manufacturing their cloth and mats, which latter are of several kinds, for dress, sleeping on, or mere ornament. These last are made from the tough membraneous part of the stock of the plantain tree, and those for clothing of the *pandanus*, cultivated for that purpose, while the sleeping mats are formed of a plant,

plant called *evarra*. The women are also employed in making combs and small baskets, of the same materials as the mats, or of the fibrous husk of the cocoa-nut, which they finish in a most neat and elegant manner. Friendly Islands.

The occupations of the men are by far more laborious and extensive than those of the women: agriculture, architecture, fishing, and boat building, being their principal employments. Cultivated roots forming the chief part of their food, they pursue this object with the greatest diligence, and have brought it to considerable perfection.

Their plaintain walks and yam fields are very extensive, and are enclosed by neat fences of reeds. The planting these vegetables requires no other labour than that of digging holes for their reception, which is done in regular lines, with a kind of wooden spade only three or four inches broad. The cocoa-nut and bread-fruit are scattered without regularity, and require no trouble after they are at a certain height.

Architecture is the science in which they are most imperfect, the habitations of the lower class being poor huts, scarce capable of sheltering them from the weather, and those of the higher orders are neither agreeable nor comfortable. The dimensions of one of a middling size are about thirty feet long, twenty broad, and twelve high. They are little better than thatched sheds, supported by posts and rafters, closed on the weather side, with strong mats, or branches of the cocoa-nut tree interwoven. The floor is raised with

cloth smoothed, and covered with mats: these mats, from one to three feet broad, being in a semi-circular form, and set on its edge, with the ends touching the sides of the house, and resembling a hearth fender, incloses a space for the mother and sucklings to sleep in; the rest of the family sleep on any part of the floor, or if it is large, there are small huts adjoining for the servants to pass the night in. The whole of their furniture consists of a bowl or two, in which they make their kava, gourds, cocoa-nut shells, small wooden stools, which serve for pillows, and a large stool for the head of the family to sit on. Their houses are, however, of little other use than to sleep in, and shelter them from the weather, for they usually take their meals in the open air.

In the construction of their boats they shew much ingenuity and dexterity, though their tools are only adzes of a smooth black stone, augres of sharks' teeth, and rasps of the rough skin of a fish fixed on flat slips of wood. The implements which they use as knives, are of shells.

Their fishing lines are made from the fibres of the cocoa-nut husk, plaited, and the large cordage by twisting several of these plaits together. Their small fishing hooks are entirely of pearl shell, but the large ones are only covered with it on the back, the points or barbs being of tortoise shell. They have also nets, some of which are of a very delicate texture: these they use to catch

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that fish which remain in the holes of the reefs when the tide is out. The other employments are making musical reeds, flutes, warlike instruments, and stools or pillows. The reeds have eight, nine, or ten pieces placed parallel to each other, but not in any regular progression, so that none of them have more than six notes; and the flutes are a joint of bamboo, close at both ends, with six holes, three of which only are used in playing, which is done by applying the thumb of the left hand to the left nostril, and blowing into one of the holes with the other; and though the notes are but three, they produce a pleasing simple music.

Their weapons are clubs highly carved, spears, darts, and bows and arrows, which latter, however, seem to be used only to kill birds, and not in war.

Yams, plantains, cocoa-nuts, and bread-fruit, form the greatest part of their vegetable diet. Of their animal food, the chief articles are hogs, fowls, fish, and all sorts of shell fish. The lower people also eat rats and dogs. Fowl and turtle seem to be only occasional dainties reserved for their chiefs.

Their meat is in general drest by baking, and is eat without any kind of sauce; their beverage at their meals is confined to water, or cocoa-nut milk. Their food is divided into portions, each to serve a certain number, and these portions are again subdivided, so that seldom more than two or three persons are seen eating together at their repasts.

repasts. The women and men in general eat together, but there are certain ranks that can neither eat nor drink in company. They seem to have no set time for their meals, but they all take one during the night. They go to rest as soon as it is dark, and rise with the dawn.

They are fond of society, and form conversation parties at one another's houses. Their other amusements are singing, dancing, and music performed by the women.

Their public diversions are single combats and wrestling, in which women as well as men exhibit; dances, in which upwards of 100 men sometimes are engaged, to the music of hollow pieces of wood beat on with sticks, and accompanied by a chorus of vocal music: the women also perform in their public dances.

One of their chief pleasures is the drinking *kava*, a beverage composed of the root of a species of pepper; the process of brewing which is not very delicate. A company being assembled, the root is produced, and being broken in small pieces, and the dirt scraped off by servants, each person receives a piece, which, after chewing, he spits into a plantain leaf. The person appointed to prepare the liquor, receives all the mouthfulls into a wooden bowl, and adds as much water as will make it of a proper strength; it is then well mixed with the hands, and some loose stuff, of which the mats are made, is thrown on the surface, which intercepts the fibres, and is wrung hard to get as much liquor out of it as possible.

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It is then served out to the company in cups of about a quarter of a pint each. This liquor has an intoxicating, or rather stupifying effect, on those not used to it; and it is so disagreeable, that even the natives, though they drink it several times in the forenoon, cannot swallow it without making wry faces.

The bulk of the people are satisfied with one wife, but the chiefs have commonly several; and though female chastity in the unmarried of the lower order is in little estimation, those of the higher orders are discreet in this respect, and conjugal infidelity is very rare.

Their mourning is very severe, cutting and burning their flesh, beating their teeth with stones, and inflicting on themselves every kind of torment. The dead are buried, wrapped up in mats or cloth. When they labour under any severe and dangerous malady, they cut off one, or both of their little fingers, which they think the divinity will accept in lieu of their bodies.

They have no priests, but are not, therefore, without religious ideas; and though they seem to have no notion of future punishment, they believe that they are justly punished on earth.

Each district, and every family of the higher orders, has its respective tutelary God, and each individual his *odooa* or attendant spirit, who partakes more of the evil than the good genius, being supposed to inflict diseases, and who is, therefore, propitiated by sacrifices, and even sometimes by human ones.

The

The greatest of their gods is *Higgo-lago*, the lord of the country of the dead, which lies far distant, and whither the souls of their chiefs, on their release, is immediately conveyed in a fast sailing canoe, there to riot for ever in the enjoyment of all sensual pleasures. As to the souls of the lower class, they are eaten by an imaginary bird, which walks on their graves.

The elements have also their subordinate deities, who are often at variance with each other. The goddess of the wind is named *Cala Filatonga*, and is believed to cause the hurricanes, which sometimes visit the islands.

Their islands they suppose to rest on the shoulders of the god *Mowee*, who being tired of his burden, often endeavours to shake it off, which produces the earthquakes, to which the islands are also subject.

The same religious system is not, however, prevalent throughout all the islands, but the general ideas are the same. Their *morais*, or burying grounds, are also places of religious worship.

Their form of government somewhat resembles the feudal system of our forefathers, being composed of a king, several powerful hereditary chiefs, almost independent of the king, and numerous lesser chiefs, dependent on the former. As to the lower class, they are almost the slaves of these chiefs, to whom they are profoundly submissive.

The peculiar honours paid to the king are, that no one is allowed to walk over his head, and

and whenever he walks out, every one must sit down till he is past. The method of saluting his majesty is by sitting down before him, bowing the head to the sole of his foot, and touching it with the upper and under sides of the fingers of both hands. After thus saluting the king, or any great chief, the hands must not touch food of any kind until they are washed or rubbed with the leaves of plants, as a substitute for water. If the king enters the house of a subject, it can never be inhabited again by its owner; hence the king has a house in every district.

The language of the Friendly Islanders, which is from the Malay root, is sufficiently copious for all the ideas of the people; harmonious in conversation; and is adapted both to song and recitative. Its construction is simple, and in some of its rules it agrees with other languages; as for instance, in the degrees of comparison, but the nouns or verbs seem to have no inflections. The extent of their verbal numeration is 100,000.

The cloth of their garments is made of the bark of the slender stalks of the paper mulberry cultivated for the purpose, and is thus performed. The outer rind of the bark being scraped off, the inner is rolled up to make it flat, and is macerated in water for a night; it is then laid on the trunk of a tree, squared, and beat with a wooden instrument full of grooves on all sides, until a piece of cloth is produced, and the longer it is beat, the finer and closer is the cloth. When

this

this operation is finished, the pieces, which are usually from four to six feet in length, and a half as broad, are spread out to dry, and are afterwards joined together by smearing the edges with the viscous juice of a berry. Having been thus lengthened, they are laid over a large piece of wood with a kind of stamp between made of a fibrous substance closely interwoven. They then take a bit of cloth, and dipping it in a certain juice expressed from the bark of a tree, rub it briskly over the cloth, which gives it a dull brown colour and a dry gloss.

The other islands of this group discovered since the voyage of Captain Cook, are Lata, Hamoa, Vavao, on the north, all fertile and populous. South of the Friendly Islands are Tasman, or Pylstart Island, the Isle Vasquez, or Maurelle, and the group of Kermandec, midway between the Friendly Islands and New Zealand. The principal of this group are, Sunday Island, or Raoul, in 29° 12′; 178° 20′ W. Macauley's Island, two miles and a half long N.W. and S.E. moderately elevated on the east; its only vegetation is coarse grass and the mangrove; the surface is covered with burnt rock and pumice stone, evincing the existence of volcanic fires. It has no running water, but from the deep gullies observed, it is probably subject to heavy rains. Rats and mice were observed on it. Five leagues south of this island are the two barren and rocky Curtis islets. Recherche Island, in this group, is of a triangular shape

shape and of moderate height; there is anchorage and a run of fresh water on the west. The Hope rock is half a mile in circuit, and eighty yards high, 21° 32′ S., and 181° 20′ E.

On the north side of the Friendly group are many scattered islands, of which the following are the best known. Traitor's island of Le Maire (Keppel island of Wallis), three miles and a half long, has fresh water and anchorage, and is inhabited; Cocos of Le Maire (Boscawen of Wallis), is three leagues in circuit rising in a high peak; Horn Island of Le Maire seems to be *l'Enfant Perdu* of Bougainville. Wallis Island, further north, is a mile long, of middling height and covered with trees; on the west it is lined by a reef in which is an opening capable of receiving ships.

NAVIGATOR'S ISLANDS.

The group discovered and named NAVIGATOR'S ISLANDS, by Bougainville, was also visited by La Perouse. The known number is seven, but the names given them by the French navigators, and those in Arrowsmith's Chart of the Grand Ocean are very different; they are from W.N.W. to E.S.E. as follow: Otawhy (Pola fr.), Gallesse fr., Oatooah (Oyolava fr.), Tootooillah (Maouna fr.), Tanfooe fr., Leone fr., Toomaloom (Opoun fr.) The natives reckon three other islands to the S. W. This chain received the name of Navigator's Islands from the number of canoes of

of the natives, and their dexterity in the management of them, circumstances which are, however, common to all Polynesia.

These islands are elevated with borders of low land towards the sea, and generally surrounded by reefs. Tootooillah or Maouna, is extremely fertile, abounding in cocoa nuts, bread fruit, and oranges; hogs are so plentiful that in twenty hours La Perouse procured five hundred, besides fowls and pigeons. The island has several cascades, and on the coral beaches were picked up basaltic pebbles. Oatooah or Oyolava, according to La Perouse, equals Otaheite in beauty and size, as well as in fertility and population; and this navigator estimates the whole population of the chain at four hundred thousand, which, however, appears to be far beyond the truth.

At Maouna, Captain de Langle, the companion of La Perouse, the naturalist of the expedition, and nine men, were treacherously murdered by the natives, in whose friendly appearance they placed an imprudent confidence. The natives of these islands equal or excel the Otaheitians in the various kinds of manufactures, and particularly in that of a kind of linen with some plant resembling flax. The same disgusting licentiousness in the intercourse of the sexes was observed here as at the Society Islands.

Penrhyn Island is solitary, small, low, and covered with trees, discovered in 1789, latitude 9° 10′, longitude 157° 45′.

Caroline

Caroline Island, discovered by Broughton, in 1796, is five miles long.

MARQUESAS.

The isles Marquesas lay in a chain N.W. and S. E., being composed of two groups; the south-easternmost, discovered by Mendana, in 1795, and named after Don Garcias de Mendoza, Marquis of Canete, and then Viceroy of Peru. To the four seen by Mendana, Capt. Cook added a fifth in 1774, and in April 1791 the American Captain Ingraham discovered the north-western group. In June of the same year this group was visited by Marchand, a French navigator, who, not knowing of the prior discovery, named them *Isles de la Révolution*. In March 1792, Lieut. Hergest, the unfortunate companion of Vancouver, touched at the same group, and after him, Captain Vancouver named them *Hergest's Islands*. In December 1792, Roberts, another American Captain, visited them, and it would appear gave them the general name of *Washington*, though Ingraham also gave this name to one of them. The fact of prior discovery by the Americans being undoubted, justice demands that the name of Washington should be continued to them. The synonimous names of the different islands are as follow:

Native Names.	European Names.	Navigators.
Ohitoa Otahoah (Wilson).	Sta. Madelena.	Mendana.

Marquesas.	Native Names.	European Names.	Navigators.
	Onataya (Wilson) Motane.	St. Pedro	Mendana.
	Ohitahoo (Wilson) Towata.	Sta. Christina	Ditto.
	Ohevahova (Wilson) Hoivahova.	Dominica	Ditto.
	Teebooa (Wilson)	Hood	Cook.
	Fetugu Krusenstern.	Adams	Ingraham.
	Rooapooah (Wilson)	Marchand	Marchand.
	Uapoah (Krusenstern).	Trevenen	Hergest.
		Jefferson	Roberts
	Rooahoogah (Wilson)	Riou	Hergest.
	Uahuga (Krusenstern).	Massachusets	Roberts.
	Nooalieevah (Wilson)	Federal	Ingraham.
		Baux	Marchand.
	Nukahiva (Krusen).	Sir H. Martin	Hergest.
		Adams	Roberts.
	Uuknown, one mile and a half S.E. of Uapoah, two miles in circuit.	Lincoln	Ingraham.
		Revolution	Roberts.
		Platte	Marchand.
		Level	Wilson.
	Mottuaity, (two islands.	Franklin	Ingraham.
		Two Brothers	Marchand.
		Hergest rocks	Hergest.
		Blake	Roberts.
Roberts or Hergest.	Hiau:	Knox	Ingraham.
		Masse	Marchand.
		Freemantle	Roberts.
	Fattuhu.	Hancock	Ingraham.
		Chanal	Marchand.
		Langdon	Roberts.

The

The Marquesas are elevated, volcanic, and rocky, but the vallies are well watered by rivulets, and afford the same vegetable productions as the Society Islands. The hog and rat are the only quadrupeds; the first of a very small size, seldom weighing twelve pounds. These islands have also the common fowls, but not abundant. Marquesas.

The inhabitants are painted as the handsomest of the Polynesian race, and in their manners differ little from the Otaheitians, the same licentious intercourse of the sexes characterizing both, as well as the same prostitution of their women to strangers, a custom which produced an adventure to one of the good missionaries, the relation of which would make a stoic smile:* and little less shocking than the offered caresses of the Marquesan princess, was the indecent appearance of the females who visited the ship; for their clothes not bearing the wet, in these visits they were left on shore, and their sole dress was such as recalled the idea of our mother Eve. The green leaves, however, attracting the appetite of the goats on board the ship, when the women turned to defend those before, the hungry animals attacked them behind, so that they were soon reduced to a perfect state of nudity, to the great scandal of the brethren.

Ohitoa, the south-easternmost of the Marquesa group, is five leagues in circuit. Mendana anchored in a good bay on the south side.

Onatayia is three leagues in circuit, and apparently little fertile.

* Missionary Voyage, page 141, 4° Edit.

Marquesas. Otihatoo is three leagues long, composed entirely of hills with fertile vallies. The Bay of *Madre de Dios* of Mendana, or Revolution of Cook, near the middle of the west side, is a good anchorage with abundance of fresh water.

Ohevahoa is six leagues long, and composed of steep hills well wooded. In the centre of the island rocky precipices start up in the shape of obelisks, pinnacles, &c. in such confusion as to leave no doubt of their being produced by a convulsion of nature.

Retuga is small, but elevated, with many rocks round it.

Uapoah is six miles long, composed of three or four hills with rocky summits; at the S.W. end is a good bay, and others on the south side.

Uahuga is six leagues in circuit. The west side is rocky and lined by a reef: on the S.W. is a good bay. It rises in a lofty mountain of considerable height.

Nukahiva is the largest of this chain, being sixteen leagues long S.E. and S.W.; its south coast is composed of lofty and rugged rocks, down which tumble many beautiful cascades, one from a height of two thousand feet. On this side are three good bays, named Comptroller's Bay, (Hergest) Port Anna Maria, and Tchitchigoff (Krusenstern).

Hiau and Fattuhu are two uninhabited islands, but visited by the people of the other islands for cocoa-nuts.

Between the Friendly and Society groups are the fol-

following scattered islands. Savage Island of Cook 19° 2′; 169° 30′ W.

Palmerston's Island of Cook 1774, is formed by nine or ten spots of earth joined by coral reefs; the largest spot is not above one mile in circumference, and not more than three feet above the level of the sea; they form a semicircle enclosing a bay or lagoon on the west. There is no anchorage round them, but safe landing for boats. The soil, which consists of a very thin layer of vegetable mould over a coral base, is covered with bushes, and a good many cocoa-nut trees. They are uninhabited, have no fresh water, but are frequented by great numbers of men of war and tropic birds, and boobies; some owls, curlews, and sand pipers were also seen on them, as well as small brown rats. Fish is abundant.

"At one part of the reef, which bounds the lake within," says Captain Cook,* "there was a large bed of coral almost even with the surface, which afforded perhaps one of the most enchanting prospects that nature has any where produced. Its base was fixed to the shore, but reached so far in that it could not be seen, so that it seemed to be suspended in the water, which deepened so suddenly, that, at the distance of a few yards, there might be seven or eight fathoms. The sea was at this time quite unruffled, and the sun shining bright exposed the various sorts of coral in the most beautiful order; some parts branching into the water with great luxuriance, others laying collected in round balls, and in various other figures;

* Cook's third voyage, Vol. I. p. 216.

gures; all which were greatly heightened by spangles of the richest colours, that glowed from a number of large clams, which were every where interspersed. But the appearance of these was still inferior to that of the multitude of fishes, that glided gently along, seemingly with the most perfect security. The colours of the different sorts were the most beautiful that can be imagined; the yellow, blue, red, black, &c. far exceeding any thing that art can produce. Their various forms, also, contributed to increase the richness of this submarine grotto, which could not be surveyed without a pleasing transport, mixed, however, with regret, that a work, so stupendously elegant should be concealed, in a place where mankind could seldom have an opportunity of rendering the praises justly due to so enchanting a scene."—18° 0′; 163° 12′ W.

Hervey Island, of Cook, 1774, named Terrouge Atooa by the natives, is similar to Palmerston's Island, being composed of three or four spots of dry ground, covered with bushes, joined by reefs, and is six leagues in circumference. There is no anchorage round it. The natives seem to differ materially from those of the Society Islands of Cook, though their language is the same. They are of a darker colour, and have much more savage features, resembling the natives of New Zealand; neither are they so friendly as the former. Their hair is strong and black, sometimes worn loose, at others tied in a bunch on the crown of the head, while some have it cut short. Their

only

only covering is a narrow strip of mat round the loins, nor do they appear to practice tattooing. 19 18′; 158° 54′ W.

Otakootaia, or Venooa-ette, is about three leagues in circumference, not more than six feet above the level of the sea, and has no anchorage or fresh water. Besides bushes, it has cocoa-nuts—is uninhabited—but sometimes visited by the natives of the neighbouring island of Wateeoo. Boats can land on the west side. 19° 51′; 158° 21′ W.

Wateeo is four leagues S.E. of Otakootaia, and about six leagues in circumference. Its surface is diversified with small hills, entirely covered with verdure, and it produces the cocoa palm, plantain, bread-fruit, the tow plant, and other vegetables of these seas; and is well supplied with hogs. The natives are similar to those of the Society Islands, and received Captain Cook with chearfulness and hospitality.

At this island, that navigator met three natives of Otaheite, who had been driven by the winds and currents thus far to leeward, in attempting to pass in a canoe to Uliatea. Captain Cook after relating their story observes, "The application of the above narrative is obvious; it will serve to explain better than a thousand conjectures of speculative reasoners, how the detached parts of the earth, and in particular, how the islands of the *South Sea* may have been first peopled, especially those that lie remote from any inhabited continent, or from each other." But this fact,

ab with her others of the same nature, proves directly the contrary of the inference deduced from it by Captain Cook; namely the peopling of Polynesia from the west, for in all these instances the natives have been driven from east to west by the trade wind and equatorial currents, and hence the real consequence would seem to be the derivation of the Polynesian race from America, a consequence, however, which every physical and moral feature of these people forbid us to adopt.

Mangeea Island, south of Wateeoo, is five leagues in circuit, rising in the middle to hills, visible ten leagues. The S.W. shore is composed of cliffs of sand stone ten feet high, with many caverns worn by the sea. The north shore is composed of broken land, with ravines and intervals of sandy beach. Captain Cook found neither anchorage nor landing place. The natives resemble those of Wateeoo.

Several degrees farther east are met other scattered islands, in the following succession. Oheteroa, a high island, four leagues in circuit: it abounds in the *casuarina*, and is inhabited.

Toobooai, five leagues long, rises in hills of considerable elevation, with a narrow border of low land, edged by a sandy beach, and covered with lofty trees. The hills are clothed with grass and trees in tufts, except some patches of rock. On the N.W. side is anchorage and landing for boats, through a break in the reef. The inhabitants appear unfriendly. 23° 25′; 149° 29′ W.

High Islands of Captain Broughton, in latitude 22° 46′, longitude 148° 08′ W.

Again, proceeding to the north we meet two insignificant islands, forming the western limit of the Society chain. They are named Genuvera, the Scilly of Wallis, and probably the del Peregrino of Quiros, a group of low patches, on a reef 16° 30′; 155° 10′ W. The second is a similar collection of islets, named Mapia by the Society islanders, and Lord Howe's Island by Wallis, probably the Fugitiva of Quiros, 16° 46′; 154° 8′ W. both these islands are uninhabited.

SOCIETY ISLANDS.

The group to which Captain Cook gave the name of Society Islands, consists of six only, *viz.* Maroa, Bolabola, Tubia, Otaha, Ulietea, and Huaheine; but to these we may add Otaheite, Eimeo, Sir Charles Saunders's, Tethuroa, and Mitten.

Otaheite being nearly in the centre of the group, and the most considerable and celebrated, deserves to be first noticed.

It seems certain that this island is the *Sagittaria* of Mendana, so long looked for in vain, until it was discovered by Wallis in 1766, who named it King George the Third's Island. In the same year it was visited by Bougainville, who, unacquainted with the English navigator's prior discovery, named it *New Cythera*. Finally, Captain

Society Islands.

tain Cook nearly completed the knowledge of it in his three voyages; and what he left undone has been amply accomplished by the frequent visits paid to it since, and above all, by the narratives of the missionaries, who resided in the island for considerable periods.

Otaheite is composed of two circular peninsulas, joined by an isthmus, three miles broad. The north west peninsula is much the largest, and both together are about 100 miles in circumference. Both rise in lofty hills, leaving only a border of low land, of three miles in breadth, towards the sea. The whole island is surrounded by reefs, in which, however, are several openings, forming good anchorage.

"Perhaps there is scarcely a spot in the universe," says Captain Cook,* "that affords a more luxuriant prospect than the south-east part of Otaheite. The hills are high and steep, and in many places craggy. But they are covered to the very summit with trees and shrubs, in such a manner, that the spectator can scarcely help thinking, that the very rocks possess the property of producing and supporting their verdant clothing. The flat land which bounds those hills toward the sea, and the interjacent valleys, also teem with various productions, that grow with the most exuberant vigour, and at once fill the mind of the beholder with the idea, that no place upon earth can outdo this, in the strength and beauty,

* Vol. ii. p. 144.

beauty of vegetation. Nature has been no less liberal in distributing rivulets, which are found in every valley; and as they approach the sea, often divide into two or three branches, fertilizing the flat lands through which they run. The habitations of the natives are scattered without order, upon the flats; and many of them appearing toward the shore, presented a delightful scene, viewed from our ships; especially as the sea, within the reef, which bounds the coast, is perfectly still, and affords a safe navigation at all times for the inhabitants, who are often seen paddling in their canoes indolently along, in passing from place to place, or in going to fish." Society Islands.

In ascending the hills, the vegetable earth of the low ground changes to clay and marl of different colours, covering a tender grey rock. Basaltes seems to predominate in the upper region.

The trade wind between E.S.E. and E.N.E. prevails generally throughout the year, and when moderate, is accompanied with fine clear weather; but when it blows fresh, it is usually cloudy, with showers of rain. In December and January, it sometimes blows for four or five days between W.N.W. and N.W. with dark cloudy weather and rain, and of these variations the natives of the islands to leeward take advantage to visit Otaheite. Winds from S.W. to W.S.W. are more frequent, and sometimes blow in brisk squalls, with dark cloudy weathear, a sultry atmosphere, and thunder and lightning: when they veer to the

the south of S.W. they are sometimes so strong as to blow down houses and cocoa-nut trees; but these tornadoes are never of long duration.

The Otaheitans have names or personifications for these different winds:—the trade wind they call Maaraee; between the S.E. and S.S.E. Maoni; between the W.N.W. and N.W. Tocrou; between N.W. and North, Erapotaia, who, according to their mythology, is the wife of Tocrou; between S.W. and W.S.W. Etoa; and between S.W. and South, Farooa.

The vegetable productions of the island are, yams, taro root, sugar cane, the kava, and others used as food, plantain, bread fruit, cocoa nut; the sandal wood is also found in the mountains, and a great number of other beautiful woods.

The natural fertility of the soil, and the fineness of the climate, reduce the labours of cultivation to almost nothing; and the yams, cloth plant, of which the seeds are brought from the mountains, the kava, and the plantain, are the only vegetables that require the slightest attention. The yam they plant in the same manner as at the Friendly Islands. The kava and cloth plant require no other care than to cover them from the sun, when young, with the leaves of the bread fruit tree. The plantain demands no more than cutting off the old stems when the fruit is gathered, and new ones have shot up. The cocoa-nut after it is a foot or two above ground, is left to itself; and the bread-fruit tree reproduces itself spontaneously by shoots from the roots, or shoots instead

instead of cultivating, it is sometimes necessary to remove it, to make way for other vegetables. Society Islands.

The only animal found on the island by the first discoverers was the hog, the breed of which has been since much improved by some left behind by two Spanish ships in 1774; who also left some goats and dogs, both of which have multiplied.

The natural curiosities of the island are, as far as we know, confined to two, of which the principal is a lake of fresh water, on the top of one of the highest mountains; to go to which, from Matavai bay, and return, requires three or four days. It is said to be fathomless, and to abound in enormous eels, which are sometimes caught by the natives, who venture on the lake on rafts made of wild plantain trees. The second curiosity is a pond, the water of which, though limpid, deposits a yellow sediment, and if drank is found a mortal poison, as well as causing those who bathe in it to break out in blotches.

The natives of Otaheite differ materially from those of the Friendly Islands, in their physical as well as moral character. They are infinitely more delicately formed, and of a much fairer complexion, which is probably owing to their more indolent mode of life, arising from the superior fertility of the country. But this superior beauty is also accompanied with a degree of langour and want of animation, most particularly remarkable in their athletic amusements, such as wrestling and boxing, which are mere children's play to the diversions of the same kind in the Friendly Islands.

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lands. The women of Otaheite, according to Captain Cook, are more beautiful than those of the Friendly Islands, possessing all those physical characteristics that distinguish the female sex in the most polished countries.

The Otaheitans are subject to several mortal and loathsome diseases, amongst which are the scrophula, a disease called hottati, which produces a crooked back, indolent swellings of the extremities, dropsy, intermitting fevers, dysentery, &c. and a disease produced by the immoderate use of the kava, which causes them to break out in blotches, and to waste away to skeletons. This beverage is here chiefly confined to the better sort, and is prepared in a less disgusting manner than at the Friendly Islands; the stalks and leaves as well as the roots being bruised, and water poured over them, without the process of chewing, neither do large companies assemble to drink it, as at the former islands.

Their general food consists of at least nine-tenths vegetables; and though of these they have usually the greatest abundance, from the neglect of cultivation, or unfavourable seasons, scarcities, and even famines, sometimes occur, in which great numbers perish. When the bread fruit and yams are consumed, they have recourse to various roots which grow wild in the mountains.

Of animal food a very small portion falls at any time to the share of the lower class, and then it consists of fish, sea eggs, and other marine productions. The great chiefs are alone able to eat

pork

pork every day, and the inferior ones, according to their ranks, once a week, fortnight, or month. When the island is impoverished by war, or other causes, the king prohibits his subjects of every rank from killing hogs, and a similar prohibition is also occasionally extended to fowls.

The meals are very numerous, their first repast being at two o'clock in the morning, after which they again go to sleep, and their last at eight o'clock in the evening. The women have not only the mortification of not being allowed to eat with the men, but are prohibited all the better sorts of food, such as turtle, some kinds of fish, and several kinds of plantains, and it is very seldom that even those of the first rank are allowed to eat pork. The women are also obliged to serve up their own victuals, for they might certainly starve before any grown man, even of the lowest class, would do them such an office. The children of each sex also eat apart.

"When Otaheite was rediscovered by our English navigators, it became the envy and admiration of Europe. Those who placed happiness in the indulgence of sensual appetite, and freedom in the absence of legal and moral restraints, were loud in their praises of the *New Cythera;* and all regarded these islanders as singularly favoured by Providence, because their food was produced spontaneously, and because they had no other business in life than to enjoy existence. But now that they are better known, it appears indubitably that their moral iniquities exceed those of any other

other people, ancient or modern, savage or civilized. Independent of the licentious intercourse of the sexes, the horrid practice of infanticide, human sacrifices, &c. crimes against nature are habitually committed without shame, and as if to shew to what loathsomeness of pollution a depraved imagination will have recourse, when stifled with all ordinary abominations, the missionaries assure us that a society was formed at Otaheite, who in their meetings were to eat human ordure as the seal and sacrament of their association.

The abominable society of Arreoys, is composed of those of both sexes of superior rank who, possessing the means and the inclination to procure a succession of fresh connections, are constantly roaming about, and spend their youths in the most disgustious enormities. When an Arreoy woman is delivered of a child, a piece of cloth dipped in water is applied to the nose and mouth, which suffocates it; but if natural affection leads the parents to preserve their offspring, they are obliged to retire from this society, and live afterwards as man and wife.

The only ceremony in the coming together of the sexes is, that the man is obliged to make a present to the father of the girl, and if this present is not esteemed large enough, the father makes no scruple of obliging her to quit her lover and live with another, who may be more liberal.

Besides these cases where the horrid custom of infanticide prevails, there are others; thus, if a person of either sex of superior rank is connected with

with one of inferior, the children are invariably destroyed; and among the lower class, it is common for women to destroy their three first children, particularly females, for girls are much more generally destroyed than boys, and hence women are become so scarce, that few can afford to purchase wives, and the women being sought for in proportion to their scarcity are continually changing, and by the reaction of evil, destroying their offspring to be without incumbrance.

Among this depraved race old age is treated with disrespect, and 'old man' is a term of the highest contempt. The sick are generally totally neglected, and often put to death by their relations.

Such is the character given of the Otaheitans by some of their European visitors, while according to others this picture is overcharged and calumnious. Captain Wilson assures us, that it is as difficult in this country as any other to have a criminal intercourse with married women, or even with single ones, except those of the lowest class, and even among them many are chaste. It is true there exists here a class of prostitutes, more numerous perhaps, than in other places, and such are the women that frequent the ships of Europeans and their camps on shore.

The missionaries also assure us that they have never seen any indecency committed in public, and that their licentious dances are only performed by young rakes, and never but in the theatre; they also tell us, that as mothers and wives

Society Islands. the Otaheitans do not dishonour human nature, being attentive to the interests of their husbands, and careful of their offspring. Amongst themselves property is sacred, and the last will of the deceased scrupulously executed, and injurious words, violence, and theft are severely punished.

The religious system of the Otaheitans is very extensive and complicated. It appears that they believe in a kind of trinity, existing in a father, a son, and a bird or spirit. This supreme divinity resides in a palace in the heavens, with many other deities of inferior order, named *Eatuas*, and collectively *Fhanaw po*, or children of the night. The genealogy of their gods is like all other theogenies, a system of allegorical cosmography. The isles of the ocean are the fragments of a great continent, which the gods in anger broke to pieces. The *tri-une* divinities have a temple in the district of Oparree, but are only invoked in great public calamities, the daily prayers being addressed to the Eatuas. Each family has also its *thi*, or protecting genius, who is the author of its good and evil fortune. The souls of the dead they believe to be eaten by the holy bird or deity, and after being purified by a transmutation into his substance, take flight and become divinities who watch over the fate of mortals. They strongly believe in the immortality of the soul, and in the doctrine of future rewards. The *tahooras* or priests are very numerous and powerful, and the chiefs on solemn occasions officiate in the sacrifices.

All

All the ambition of an Otaheitan is to have a grand *morai*, or family mausoleum, which is always placed in the most romantic situations, under the shade of funereal trees, where the aspect of rocks and the murmur of waters inspire a pleasing melancholy. The corpses are placed on elevated stages, named *tapapoo*, where they remain until the flesh is consumed, when the bones are collected and deposited in the morai. Mourning consists in cutting the flesh with the tooth of the shark, so that the blood and tears form a horrible mixture. Society Islands.

Human sacrifices are offered on various occasions, such as previous to going to war, on the sickness of any of the royal family, on the investiture of the king, &c.: in the last case, every chief offers from one to three victims, in proportion to the size of his district. They are always of the lowest class, generally criminals, and are knocked on the head by surprize, or while asleep, so that they have no warning of their fate; the ceremony consists in the priests plucking out the bowels and one eye, which latter he presents to the king on a plantain leaf. Prisoners taken in war are also often sacrificed. They practice circumcision, not from any religious motive, but from an idea of cleanliness, and both sexes are tatooed in various parts of the body.

The government is a mixture of despotism and aristocracy. The honours paid to the king are of the most extravagant nature. Whatever place he enters is made sacred by his presence, and no per-

Society Islands.

son but his domestics may enter it afterwards; he is therefore carried on men's shoulders when out of his own immediate domain, for wherever a royal foot touches is sanctified ground. The king's dignity does not permit him to feed himself, and all persons in passing him, or any of the royal family, or even his house, must strip the breast and shoulders. Every word in which the name of the king enters as a part is forbidden to be spoken.

The son of the king immediately on his birth succeeds to the title and honours of his father, and the latter descends to the rank of regent; but if the king has no son, his brother succeeds him at his death.

To the royal family succeed the *erees* or great chiefs, who possess and govern large districts, and are almost independent; the *towhas* are generally relations of the *erees*, who govern subdivisions of their districts; the *rattiras* are the possessors of frechold lands; the *manahoonies* the cultivators, without property but free in their persons; and finally the *towtows*, who are servants, or rather slaves. The individuals of the inferior classes are precluded from rising beyond the rank of *towhu*.

Since the discovery of the island by the English, it has been almost continually at war with its neighbours. Their battles are all of the naval kind. Their war canoes are numerous, and in them they fight hand to hand on stages, the vanquished usually jumping overboard, and endeavouring to save themselves by swimming; for they never give quarter,

quarter, except to reserve the prisoner for a more horrid death the next day. A single battle, therefore, generally decides the war, and often causes whole islands to change their sovereigns. Society Islands.

The language of the Otaheitans is radically the same as that spoken in all the islands of this ocean, but it is less gutteral than that of the Friendly Islands; it abounds in figurative expressions, and admits of that inverted arrangement of words, which distinguishes the Greek and Latin from most modern languages.

The first present made the Otaheitans by their European visitors, was a disease a thousandfold more destructive than any of their own, and which in their dissolute state of manners, and added to their general practice of infanticide, threatens a speedy extermination to the whole race. The havoc that this disease has made is indeed almost incredible. In 1796, the missionaries estimated the population of Otaheite at 16,000, and in 1804 it was reduced to half that number.

The residence of the missionaries among them has produced little effect in correcting their manners, and few, if any, have been converted to Christianity. There are, however, some slight symptoms of improvement in their adoption of some European fashions, particularly coats and shirts, which are worn by many of the chiefs, and every person of any consequence carries a musquet. The use of European tools is also become universal, and the King has learned to write his own language in European characters.

Society Islands.

The various attempts made to introduce domestic animals and the vegetables of Europe into these islands, have had very little success. Besides the melioration of the breed of hogs, and the introduction of goats and dogs by the Spaniards in 1774, Captain Cook in his last voyage left on them an horse and mare, three cows and a bull, an English ram and ewe, and three Cape ewes; some geese, ducks, turkeys, and pea-fowl. The horse died, the bull was destroyed, and the sheep perished, nor had the poultry any better success. The goats, however, have multiplied, and the missionaries have endeavoured again to introduce sheep, &c.

The principal road of Otaheite is Matavai Bay, or Port Royal, on the north: it is within several reefs and opposite a sandy beach with a fresh water rivulet.

Marua, the westernmost of the Society Islands, of Cook, is small, but in the middle rises to a round hill that may be seen twelve leagues: it is surrounded by a reef, and has no good anchorage.

Bolabola, or Borabora, is eight leagues in circumference, and rises in a high double peaked mountain in the middle of the island. On the south west side is the harbour of Otravanooah, the only place of anchorage round the island, the rest being surrounded by a reef; the channel is between two islets, and is one-third of a mile broad, the depth within is twenty-five to twenty-seven fathoms. The inhabitants of this island are amongst the most warlike of the Polynesians, having conquered

quered several of the neighbouring islands, but their power has latterly again declined. Society Islands.

Tubai, a small low island, five leagues N. by W. of Bolabola.

Otaha, S.E. by E. four leagues from Bolabola, has two good roads, *viz.* Ohamena on the east, the channel into which is between two small islets, one mile off shore; the depth is twenty-five to sixteen fathoms. Oherrurua, on the S.W. is within reefs and has twenty to twenty-five fathoms.

Uliatea, or Orayetea, two miles from Otaha, there being no passage between them for ships. On the west side are the harbours or roads of Ohamenneno, Teteroa, and Maarahai; Oachate, near the south point. Ohetura, on the S.E., Onimahou on the N.E., and Oopoa near the east point; all of which afford good anchorage within reefs. The natives of this island are darker than their neighbours, and also more savage and less hospitable.

Huaheine, eight leagues N.E. of Uliatea. On the N.W. side is Owarree harbour within reefs; here the fruits ripen some weeks sooner than at Otaheite.

Sir Charles Saunders, so named by Wallis, is six miles long, and rises to a hill in the middle.

Eimao, or Duke of York's Island, of Wallis, has several good harbours, particularly Taboo on the north, which has the advantage possessed by none of the others among those islands, that a ship can sail in and out with the trade wind. Wood and water are also procured here with great

Society Islands &c.

facility. The other roads are Parowroah, also on the north, and some on the south. This island was named Heeri by Bougainville.

Tethuroa, eight leagues north of Matavai in Otaheite, consists of six or seven spots of ground on a reef, just above the level of the water.

Maitea, or Osnaburg Island of Wallis, is four miles in circumference, has no anchorage, and very bad landing. This island is probably the Dezana of Quiros, and is evidently the Boudoir of Bougainville.

East of the Society Islands is a large extent of sea thickly sprinkled with little low coral and sandy islands, to various portions of which navigators have given the names of the *Dangerous Archipelago*, the Labyrinth, Pernicious Islands, &c. Many of these islands are collections of dry spots on a reef enclosing a lagoon on the west; they all abound in cocoa-palms, and possess hogs and dogs; the natives resemble the Society Islanders, but are darker. This labyrinth seems to be divided into two portions; the first confined between the latitudes 14° and 20° and the second between 20° and 35°. The principal islands of the first portion are Oanna, two islands; one of which appears to be the Recreation Island of Roggewein; it is twelve leagues in circuit, elevated and well wooded, by which characters it rather attaches to the Society Archipelago; its latitude is 15° 58′ and longitude 148° 48′ W.

Prince of Wales Island, of Byron, is twenty leagues

leagues long east and west, but very narrow. The south side is lined by reefs three leagues off. Byron found no anchorage here, nor could his boats land. It is well inhabited. 14° 58′; 147° 30′ W.

Opatai, or Palliser's Islands, of Cook, are evidently the Pernicious Islands of Roggewein; they are four in number, the largest of which is eight leagues long, N.N.W. and S.S.E. 15° 26′; 146° 20′ W.

King George's Islands, of Byron, are two, laying S.W. by W. and N.E. by E. two leagues from each other. The N.E., called by the natives Tiookoua, is a semicircular coral reef, enclosing a lagoon on the N.E., into which is a channel between the reefs, only the breadth of a ship, but with thirteen fathoms; before this channel is an islet. 14° 27′; 144° 56′ W.

Oura, the S.W. island, is four leagues long, and similarly formed. Neither of these islands have anchorage, but both have fresh water, though apparently in small quantity, and are thinly inhabited.

Rima-roa, or Disappointment Islands, of Byron, are two, east and west of each other six leagues. They are mere coral reefs, with spots of earth. They have no anchorage, nor could Byron find a landing place, whence their name. The natives appear unfriendly. 14° 7′; 141° 10′ W.

Oheevanoa, or Chain Island, of Cook, a string of low spots of earth joined by reefs enclosing a lagoon

lagoon on the west, and with only a few small trees. 17° 25′; 145° 30′ W.

Adventure Island, of Cook, 17° 09′; 144° 30′ W.

Furneaux Island, of Cook, a bank of coral twenty leagues in extent, with spots of land enclosing a lagoon. 17° 05′; 143° 16′ W.

Bird Island, of Cook, similarly formed to Furneaux. 17° 49′; 142° 43′ W.

Two Groups, of Cook, a number of spots of land and reefs, occupying a space of nine leagues: some of them are ten miles long, but not above one quarter of a mile broad; they are inhabited.

Resolution Island, of Cook, two leagues long N.W. and S.E. 17° 24′; 141° 39′ W.

Bow Island, of Cook, Harp Island, of Bougainville, three or four leagues long, but not above 200 yards wide, encloses a lagoon, and is inhabited and well wooded. 18° 17′; 140° 43′ W.

Prince Henry's Island, 19° 0′; 141° 22′ W.

Cumberland Island, of Wallis, 19° 18′; 140° 51′ W.

Gloster Island, of Wallis, 19° 11′; 140° 20′ W.

Thrumb Cap, of Cook, Lanciers, of Bougainville, a low circular island, one mile in circumference, 18° 35′; 139° 48′ W.

Lagoon Island, of Cook, Facardins, of Bougainville, composed of some woody spots, enclosed by reefs, 18° 48′; 138° 33′ W.

Egmont Island, of Wallis, three leagues in circuit,

circuit, is inhabited, but has neither anchorage nor landing, 19° 28′; 138° 20′.

Whitsunday Island, of Wallis, has fresh water but no anchorage, 19° 26′; 138° 12′ W.

Queen Charlotte's Island, of Wallis, 19° 18′; 138° 20′.

Serle's Island, eight miles long N.W. and S.E. encloses a lagoon on the west and rises to two hummocks on the S.E. 18° 08′; 137° 0′ W. (Wilson).

In the second or southern portion of the Dangerous Archipelago, we find the following islands.

Duke of Gloucester, of Carteret, two low sandy and woody islands, six leagues asunder, and each situated on a crescent-shaped reef, forming a lagoon: they have neither fruit, fresh water, nor inhabitants, and are without anchorage, but boats may land. 20° 31′ S.; 145° 54′ W.

Osnaburg Island, small, low, and covered with wood. 20° 8′ S.; 140° 33′ W.

Blight Lagoon Island, 21° 43′ S.; 140° 30′ W.

Carysfort Island, 21° 0′ S.; 138° 26′ W.

Lord Hood's Island, 21° 42′; 135° 32′ W. (Edwards) six leagues long and three wide, enclosing a lagoon.

Gambier's Islands, 23° 12′ S; 135° 0′ W. several high islands occupying a space six leagues long, surrounded by a coral reef, appear to be well inhabited. (Wilson).

Crescent Island, of Wilson, 23° 22′; 134° 29′ has its name from enclosing a lagoon on the west; though it affords no fruit trees, it is inhabited.

St.

St. Juan Baptista, 25° 57′ S. 137° 56′ W.

Pitcairn's Island, a little solitary spot five miles in circumference and elevated, so as to be seen fifteen leagues, was discovered by Carteret in 1766. It has lately become interesting, by the discovery of the descendants of some of the mutineers of his Majesty's ship Bounty, seven of whom, with each a wife and servant from Otaheite, sought a retreat in this island; but six of the English being murdered by their servants, and these latter in their turn destroyed by the women, but one man and the seven females remained; whose progeny, when the island was visited by an American ship in 1810, amounted to twenty-five individuals living in a state of patriarchal innocence. 25° 13′; 133° 25′.

Far distant from all other lands are the following islands. Oparo, discovered by Vancouver in 1791, is two leagues long north and south, very mountainous and craggy, with perpendicular cliffs towards the sea. It has good anchorage and landing near the N.W. point and is inhabited. 27° 36′; 144° 9′.

Ducie's Island. 24° 40′; 124° 37′ W.

Easter Island, discovered by Roggewein in 1686, and since visited by Cook and La Perouse, is twelve leagues in circuit, and of an elevation to be seen fifteen leagues: on the west side is anchorage. This island is inhabited by the Polynesian race, but is scantily supplied with provisions, and the only water is that left in the crevices of the rocks by rains.

On

On Easter Island is seen a kind of platform, on which are placed rude columns ten to fifteen feet high, surmounted by a bust whose face is five feet long. The substance is a red lava very light and porous; the busts have a resemblance to the Polynesian race, and hence afford no foundation for the conjecture of the Peruvians having peopled the islands of this sea. 27° 6′; 109° 47′ W.

BRITISH NORTH AMERICA.

The discoveries of Baffin to the North of Hudson's Bay being extremely problematical, our readers will doubtless excuse our passing over the uninteresting nomenclature of the supposed sounds, capes, and islands, to which he gave the names of his patrons or friends, Sir James Lancaster, Alderman Jones, Dudley Digges, and many others. In expectation of a change of climate by which future navigators may be enabled to verify these discoveries, we shall commence our notice of this continent with Hudson's Bay.

This mediterranean is entered, according to the most recent charts, by *two* straits, separated by a group of islands, the northernmost named Cumberland, and the southernmost Hudson's Strait. In general the shores are composed of naked rocky precipices, rising from the water to the clouds, furrowed by profound ravines, or separated by narrow vallies, never cheered by the sun's rays, and filled with snow and ice for seven-eights of the year, and where this appearance is varied, it is only by low, marshy and sterile spots. The mouths of the rivers, which are numerous, are choaked with shoals, and their navigation impeded by rapids and cataracts; most of them have their origin in lakes.

The

The greatest depth in the middle of the bay is 140 fathoms, decreasing regularly towards the shores, where the bottom is mud and sand: groups of rocky islands are scattered over it, particularly on the east shore. Hudson's Bay.

Fish is not abundant either as to species or individuals. Those of the fresh waters mentioned as most common are small sturgeon, the common salmon *(salmo salar)*, the char *(salmo alpinus)*, which, as well as the lavaret, is very common; several species of trout, the pike *(esox bellona)*, the sucker carp, *lophius piscatorius*, *gastorosteus aculeatus*; the barbote *(gadus lota)*, the common perch: shell fish are also scarce, the edible muscle being the only one found in any quantity; and dead cockle shells are thrown up on the shores.

The *beluga* is met in abundance near the mouth of the rivers, and the black whale enters the sea in great numbers; but the attempts to establish a whale fishery have been unsuccessful, from the constant floating ices and the shortness of the summer.

The animals met near the coasts are the reindeer and white bears, and the former are said to pass in great herds in the month of October towards the north.* All vegetation, except mosses, ceases in latitude 67°.

The

* It has been noticed that the reindeer quit Spitzbergen in the winter, and traverse the ice to Nova Zembla and Siberia, as it may be supposed to seek a warmer climate; but the writers who describe Hudson's Bay, notice the emigration of these animals, as seeking the region of the greatest cold.

The northern shores of Hudson's Bay are still almost a *terra incognita*, affording to geographers a scope for conjecture, whether they are formed of islands communicating with Baffin's Bay, or one connected land deeply indented by gulfs. Such appears to be the Welcome Sea terminating in Repulse Bay, names given by the navigators in search of the N. W. passage; the first from their hoping to find the passage here, and the second from disappointment at finding themselves repulsed by the land at its head.

Chesterfield's river, on the west shore of the entrance of the Welcome Sea, from its size long afforded the hope of being the desired passage, but on being explored was found to terminate in a large fresh water lake.

Towards the southern shores of the bay named New South Wales, the sea is free from ice only from the beginning of July to the end of September; and even in this warmer season, great islands of ice are drifted into the bays of the south from the eternally frozen regions of the north. The extremes of heat and cold are so great as 140 degrees, the thermometer in July rising to 90, while in January it falls to 50 below O. The most intense cold is observed to be at sun-rise, and during the severity of the frost the atmosphere is pure and serene, the winds being almost constantly from the N. W. During the winter the Aurora Borealis is visible almost every night, and parhelias or mock suns are frequent, and are the signs of extreme cold; paraselenes or mock

moons

thaws are also common when this vapour arising from the sea are condensed by the frost.

Though the summer's heat never thaws the ground deeper than four feet, this is sufficient to produce an instantaneous vegetation, the trees in a few days putting forth their leaves; and the Europeans of the factories gather in July the produce of their little gardens sown only in June, and which is confined to some of the most simple kitchen vegetables. This frozen climate is however healthful to Europeans, who are here subject to few diseases.

The most northern establishment of the Hudson's Bay Company is Fort Prince of Wales, on Churchill river, in latitude 59°. This river is the only one of the bay whose mouth is not choaked by shoals; on the contrary, it can receive the largest ships for a distance of ten miles to where it is crossed by rocks. The soil is here rocky and barren, there being no trees within seven miles of the factory; and inland are only found small juniper, pines, poplars, and willows. Proceeding to the north the dreary barrenness increases and the inhabitants become fewer, until at length neither the sign of vegetation, nor the trace of human beings are found in the frigid waste.

Fort York, on Nelson river, in 57° is little superior to Churchill in climate, but both it and the soil greatly improve at Moose and Albany forts, both of rivers which empty themselves into James's bay at the south extremity of this sea. Here, potatoes, turnips, and almost all kinds of kitchen vege-

Hudson's Bay. tables are reared with facility, and it is even thought that corn might be cultivated with success with proper pains. The trees grow here to a large size, and under them the ground is covered with moss and berry-bearing bushes, as gooseberries, currants, raspberries, cranberries, besides strawberries and others.

The east coast of the bay is named East Main; it is, if possible, still more barren and less susceptible of improvement than the west coast. It is lined with innumerable rocky islands.

The indigenous population of the coasts of Hudson's Bay is extremely trifling, being greatly reduced by maladies resulting from the excessive use of spirituous liquors since the communication with Europeans, as well as from the frequent murders committed on each other when in a state of intoxication.

In their persons the Indians are of the middle size, of a copper colour, with regular and agreeable features, and in their manners naturally mild, affable, and charitable; but, on the other hand, cunning, overreaching, and thieves. The relations of parents and children are those in which they appear most amiable. Like most untutored savages they are improvident, never laying by provisions for times of scarcity; and hence, when their hunting is unsuccessful, they often fall victims to famine, or are reduced to the horrible necessity of preserving their existence by devouring their own offspring.

These savages are superstitious in the extreme, and

and attribute every event of their lives to the supernatural agency of some particular spirit, who, in the shape of a star, a wolf, bear, tree, or other object animate or inanimate, watches over their destiny. They believe in a supreme dispenser of good, *Kitch-e-man-e-to*, or the great chief; and also in a maleficent being, *Whit-ti-co*, to whom they ascribe their great afflictions, and whom they propitiate by chaunting songs in his praise. Their form of government is perfectly patriarchal, the advice and opinions of the father of a family being respected by its junior members from habitual reverence: and in their war or trading excursions a chief is chosen, whose personal merit or qualifications alone are considered in the election, and whose authority ceases with the cause that conferred it.

The Indian division of time is into nights instead of days; and the year consists of twelve moons, each designated by a name signifying some remarkable event or appearance that occurs during its revolution; as,

January, by a word signifying intense cold.

February, the old or past moon.

March, the eagle moon, from those birds then appearing.

April, the goose moon.

May, the frog moon.

June, by a word signifying the laying of eggs, because in this month the birds lay.

July, the goose-moulting moon.

August, the young bird flying moon.

September, the deer shedding horns moon.
October, the deer rutting moon.
November, the freezing of the rivers moon.
December is designated by a word signifying the brush falling from the pine trees by the severity of the cold.

Though the country surrounding Hudson's Bay had been discovered by English subjects at the beginning of the seventeenth century, its dreary and unpromising appearance caused it to be neglected for half a century after, when a trading post was established on Nelson's River; but which was taken in 1655 by some French adventurers overland from Canada. In 1670 a company, at the head of which was Prince Rupert, was chartered, to carry on the exclusive trade to Hudson's Bay, and to seek for a passage to the N.W. This company formed several establishments, which at different times were destroyed by the French from Canada, who also claimed the sovereignty of these coasts, but finally relinquished this claim by the treaty of Utrecht; and from this period to the present time the company have enjoyed their sovereignty and monopoly undisturbed, except in 1782, when the forts of York and Prince of Wales were taken by the French commander La Perouse without resistance, but were restored at the peace.

In 1790 the company's establishments were:

Churchill

	Lat.	Lon.	Average No. of Skins.	Ships fr. Europe. Tons.	Sloops in Country. Tons.	No. of Serv.	Hudson's Bay
Churchill Fort, or Prince of Wales	59° 0′	94° 30′ W.	10,000	1 of 250	1 of 70	25	
York Fort	57 10	92 0	25.000	1 of 250	1 of 80	100	
Severn House	56 12	88 57					
Albany Fort	52 18	85 18	5,600	1 of 280	1 of 70	50	
Moose Fort	51 28	83 15	7,000			40	
East Main	53 24	78 50			1 of 70	25	
			47,600	3 - 780	4 - 270	240	

Of these forts Churchill alone is built of stone, all the rest being of squared logs of pine. Churchill mounts forty to fifty cannon, twenty-four to twelve pounders; and Fort York about fifteen cannon, twelve and nine pounders. The articles exported from England for the Indian trade are glass beads, kettles, rings and collars of brass; knives, hatchets, and other iron instruments; fire arms, powder, shot, and flints; brandy, tobacco, and coarse woollen cloths and blankets. The skins procured in exchange are moose, bear, fox, wolf, cat, otter, martin, buck, doe, and musquash; besides goose feathers and quills and castoreum. The amount of the trade is estimated at the export of £16,000 from England, and the import of £30,000.

LABRADOR.

The coast named Labrador by the Portuguese discoverers, and to which, by a bad compliment to their country, the English have sought to attach

Labrador. that of New Britain,* extends from the entrance of Hudson's Bay to the mouth of the river St. Laurence. The east coast presents a ridge of rocky mountains, rising abruptly from the sea, and producing only stunted trees. The lakes and rivers are numerous and abound with fish, and the whole coast is lined by islands, the resort of innumerable sea birds, amongst which is the eider-duck. The alimentary vegetables found here are wild celery, scurvy grass, and other antiscorbutic plants. The animals are the same as those of the Hudson's Bay region, and many of them turn white in winter. The Labrador iridescent spar was originally discovered here by the missionaries.

The natives appear to be of two races. The mountaineers, or Indians, who it would seem have a mixture of French Canadian blood, are Christians, and live in *wigwams*, or huts of birch rhind and deers' skins. Their sole employment is hunting, and the skins of the animals they take they dispose of to the Canadians.

The Esquimaux are a totally different race, being of very short stature, with small limbs, of a copper colour, flat visaged, with short noses, black and very coarse hair. Their dress is entirely of skins, and their food chiefly seals, deer, and birds' flesh and fish. Their winter dwellings are sunk in the ground; and in summer they construct huts with

* This name also in some maps includes the whole region of America north of Canada.

with poles, covered with skins. Unlike the Indians they have no relish for spirits. They are not known to have any religion, nor any object of worship, and are without government or laws. The men take a plurality of wives, who are considered as the property of the husband, and are transferred, bartered, or lent from one to another. On them falls all the labour except procuring food, which is the sole occupation of the men. They cannot reckon numerically beyond six, and their compound arithmetic goes no farther than twenty-one. Their canoes are of ribs of wood, covered with seal skins; they are twenty feet long, and but two broad, holding but one man. Their arms are the dart and bow and arrow. They keep great numbers of dogs, as well for food as for their skins, and to draw their sledges in winter. Their number is very trifling, those occupying the coasts being estimated only at between 1,500 and 2,000; and as the mountaineer Indians wage a most inveterate and exterminating war against them, they seldom venture from their shores. Labrador.

The chief establishment of the Moravians is at Nain, on the east coast, in latitude 57°. The English visit this country for furs, whalebone, and oil and cod fish.

CANADA.*

The province of Lower Canada lies on both sides of the River St. Laurence, as far as Lake St. Francis. The St. Laurence, considered the second river of America, issues immediately from Lake Ontario, and by it the long chain of lakes that separate Canada from the United States empty themselves into the ocean, through the Gulph of St. Laurence. The river is closed by ice from the beginning of December to the end of April. The following is a short account of the navigation of this river.

	Leagues.
At its mouth (Cape Rosieres) the breadth is 90	
At Cape Cat, 140 miles from its mouth	10
At the river Saguenay, 260 miles	6
At the lower end of the island Orleans, 370 miles	5

This island leaves a passage of two miles on each side, and the basin between it and Quebec is five miles broad. The river is navigable for line of battle ships to Quebec, a distance of 400 miles.

From

* The name of Canada has been a stumbling-block to etymologists; some supposing it to be from *aqui-nada*, "here is nothing;" an exclamation of the Spanish discoverers on their finding none of the precious metals here; and which being repeated by the Indians to the French on their first arrival, they supposed to be the name of the country. Others tell us that *Canada* is an Indian name for a collection of houses. The first is, however, very far-fetched; and as to the second, it is not probable the Indians should have a word to express what they had never seen.

From Quebec to the Lake of St. Pierre the distance is ninety miles, and the breadth of the river two to five miles. Canada.

Lake St. Pierre is ten leagues long, and four leagues and a half broad; its northern extremity is 120 miles above Quebec; and here the river narrows to one mile, as far as La Voltiere, ten miles above the head of the lake.

From La Voltiere to Montreal, thirty miles, the breadth is from two to four miles.

The navigation from Quebec to Montreal, 560 miles from the river's mouth, is fit for vessels of fourteen feet; the tide runs up about eighty miles above Quebec.

After passing Montreal, the breadth of the river to Lake St. Louis, a distance of six miles, is three quarters of a mile.

Of Lake St. Louis, which is twelve miles long, the breadth is four miles, and from this lake to Lake St. Francis, distance twenty-five miles, the breadth is from two miles and a half to two miles.

Of Lake St. Francis the length is thirty miles, and breadth twenty.

From Lake St. Francis to the Lake of the Thousand Isles the river is six miles; and from hence to Kingston, at the entrance of Lake Ontario, the breadth is half a mile to six miles; total distance from the river's mouth 745 miles.

From Montreal to Lake Ontario the river is navigable for boats of two tons, except at the rapids

Canada. pids above Montreal, that of Thirot, and at the large cataract, at which points the boats are obliged to be partly unloaded.

From Lake St. Francis to the Lake of the *Thousand Isles* the breadth of the river is six miles. The Lake of the Thousand Isles is twenty-five miles long and six broad, and is named from the great number of islands, or rather rocks covered with wood, in it; from this lake to Kingston, at the entrance of Lake Ontario, the breadth of the river varies from six miles to half a mile. *Batteaux*, carrying two tons, navigate between Montreal and Kingston, though there are many difficult rapids* and falls, some of which the batteaux pass, while others are avoided by lock canals. The ascending navigation usually takes seven days, and the passage down two or three days.

Lake Ontario is 220 miles long and seventy wide; in some places it is so deep that the bottom has not been sounded. In general it is little subject to storms, and its waters are tranquil; but irregular elevations, like those of the Lake of Geneva and others, are observed in it. The principal harbours of the lake are Kingston, the bay of Great Sodus on the south, and Toronto or York on the north, but the entrances to both the latter are obstructed by sands. In peace, besides three

* Small falls, which may generally be crossed by boats.

three or four king's armed vessels of 200 tons, there are several merchant sloops and schooners of from fifty to 200 tons employed on the lake. Canada.

Lake Ontario communicates with Lake Erie by the river Niagara, celebrated for its stupendous cataract, whose breadth is more than a mile, and the perpendicular fall 160 feet; an island 350 yards broad divides the cataract into two falls, and rather adds to than diminishes its grandeur. The *Portage*, or land carriage of merchandize, to avoid the falls, is two miles, and above them the navigation is again free to Lake Erie. This lake is 300 miles long and ninety wide; the depth is not above twenty fathoms, and in fair weather vessels may anchor all over it. The northern shores are rocky, as are the numerous islands near the west extremity of the lake; but the south shore is in general a fine sandy beach, and the land is so low, that in storms from the north, which are frequent, the waters of the lake inundate a considerable extent of country. Lake Erie has no good port on the north shore, and that of Presque Isle on the south is of difficult access, and only fit for vessels of eight feet.

Lake Erie communicates with Lake Huron by the river Détroit, or St. Claire, which nearly in the middle expands into a considerable lake; the current of this river is slow. Lake Huron is 250 miles long and 1,000 in circuit; it communicates with lake Michigan by the short strait of Michilimacinac, navigable for ships of burden; Lake Michigan

Canada. Michigan is 260 miles long and seventy broad. The strait or river St. Mary unites Lake Huron with Lake Superior, 400 miles long and from ten to 100 broad; its shores are in general rocky, and its surface is also studded with rocks; besides it is subject to storms, and the waves rise like those of the ocean. The lake is subject to irregular elevations, of which the maximum is five or six feet.

All the lakes of Canada, and their confluent rivers, abound in salmon, sturgeon, and other fish, of which however no other advantage is made than for domestic consumption.

Returning from this long navigation through the lakes to the mouth of the St. Laurence, and ascending along its left, or northern bank, we meet in succession the bay of the Seven Islands, forming a good port, where the North-West Fur Company of Montreal have an establishment for trading with the Labrador Indians, the monopoly of which they purchase from government for £1,000 a year.

The Great Saguenay river has its source in Lake St. John, and a course of 150 miles; it sweeps along a prodigious volume of water, which is precipitated over a rocky ledge sixty miles from the lake, forming a fall fifty feet high. It has besides several lesser falls. Its mouth is about one mile broad, but it widens in the ascent to three miles. In many places its banks are composed of perpendicular rocky cliffs of 600 to 1,000 feet elevation.

elevation. The astonishing rapidity with which it empties itself into the St. Laurence, renders it impossible to sound the depth at its mouth, but one mile and a half within the narrows it is 138 fathoms; and sixty miles farther up, sixty fathoms. The course of the river is rendered very winding by rocky points which interlock each other, and render the navigation tedious. Vessels of light draft can ascend it with the tide twenty-five leagues. Canada.

On the north side of the river's mouth is the harbour of Tadoussac, capable of receiving a number of large vessels. It is a round basin, encircled by rocky shores.

After passing Malbay, the north shore of the river presents bold and interesting features, being lined by huge masses of rock, interspersed with shrubs, or by the hills, called *les éboulemens*, which rise perpendicularly from the river to a great elevation.

The Isle Coudres, or Hazel Island, a league from the north bank, rises gradually from the water, and is seven miles long and three broad. It forms a parish, and contains thirty families, who support themselves by agriculture.

From this island, both banks of the river are thickly inhabited, and very fertile. The face of the country on the north is elevated and bold, presenting a succession of hills, rising abruptly from the water, and terminating on the west at Cape Tourment, whose perpendicular altitude is 2,000 feet.

The

Canada. The centre of the river is diversified by clusters of small islands, some of which are settled, and partly cleared of wood, supplying good pasture and great quantities of hay.

On approaching the island of Orleans, a rich and interesting view opens. The lower end of this island is four miles above Cape Tourment, and its upper end six miles below Quebec. It is twenty-five miles long by six broad, leaving a channel of two miles on each side; the southern one is used by large vessels, the northern one having depth only for sloops at high water, and is daily decreasing in depth. The island rises amphitheatrically from steep shores towards the centre, and is extremely fertile, producing considerable quantities of grain. On the south side is a good port, and a careening place for merchant vessels.

The River Montmorenci, which empties itself into the St. Laurence, eight miles below Quebec, is celebrated for its fall, which is 246 feet perpendicular, and 100 feet broad.

Quebec, the capital of Canada and of British America, is situated at the junction of Charles's River with the St. Laurence, and is divided into the old and new, or upper and lower towns. The former is on a rocky promontory, named Cape Diamond, the summit of which is 350 feet above the level of the river. On the highest part of the promontory is the citadel, composed of a whole bastion, a curtain, and half bastion, with a ditch, counter-

counterguard, covered way, and glacis to the south west, with many other works, so that the fortifications may be considered as impregnable, both by nature and art, and require 5,000 men to defend them properly. Canada.

The public buildings are remarkable for nothing but their great solidity. They consist of a Catholic church; the ancient Jesuit's college, now occupied as a barrack for the troops; a seminary for the education of Catholic clergy; a Protestant church; a court-house; the Hôtel-Dieu, or civil hospital; a poor-house; a convent of Ursalines, which has still thirty-six sisters; a general hospital, &c.

The lower town is the principal place of commerce, and occupies the ground at the foot of the promontory, which has been gradually gained, either by mining, or running out wharfs: it is considered unhealthy. The streets of both towns are irregular, uneven, generally narrow, and few of them paved. The houses ill built of stone, of unequal heights, and covered with boards, though the frequent fires have caused some to use tin or painted sheet iron. The apartments are without taste or elegance. The population of the city is 12,000, of which two-thirds are French.

On the south shore of the river, opposite Cape Diamond, is Point Levi, which with the former cape narrows the river to three quarters of a mile; but between these points and Orleans Island is a basin five or six miles wide, capable of holding

100 sail

100 mile of the line. The rise of tide at the quay
receive vessels larger than
Charles's River, which empties itself into the
issues from a lake of the same name, twelve miles
from Quebec, and is only navigable for boats
to
At Quebec the river begins to freeze in
ber, and some years the ice becomes solid and
stationary, and carriages and horses cross from
side to side. The ice usually begins to break up
in April, when a sudden thaw comes on, and ge-
nerally clears the river in a few days. The first
breaking up is accompanied by a noise like that
of a heavy cannonade, for the current being then
increased by the melting of the ice and snow, the
masses of the former are driven against each other
with great fury and noise.

Nothing can be more beautiful than the summer
views between Quebec and Montreal, both banks
of the river being thickly dotted with villages and
farm-houses, the latter extremely neat; and in
each of the former, however small, is a church.

The River Chaudière falls into the St. Law-
rence, eight miles above Quebec. Its banks
near the mouth are covered with wood, and it has
water for ships of considerable size. It flows
from Lake Megantic, and has a course of 100
miles. Four miles from its mouth is a fall 130 feet
perpendicular, and 250 feet broad.

Trois Rivières, eighty miles above Quebec, is si-
tuated at the junction of the River St. Maurice with
the St. Laurence. In the mouth of the former
are two islands, forming three channels, whence
the

the town derives its name. None of these channels receive vessels larger than sloops, and the river is only navigable for boats. The town extends three quarters of a mile on the bank of the river, and contains about 250 houses, chiefly of wood; a Catholic and Protestant church; a convent of Recollets; hospital, &c. The population is about 1,100.

Lake St. Peter is formed by an expansion of the waters of the St. Laurence, to the breadth of from fifteen to twenty miles, and its length is twenty-one miles; in many parts it has but ten and eleven feet depth. At the upper end of the lake are a number of small islands, some of which are cleared of wood, and afford pasture for cattle: they are the first islands met with in ascending the St. Laurence from Orleans, a distance of 117 miles. From hence to Lake Ontario are various clusters of islands.

The town of William Henry, or Sorel, on the south bank of the St. Laurence, 160 miles above Quebec, is situated at the confluence of the Sorel or Chambly River (which issues from Lake Champlain) with the St. Laurence. The Sorel has water for vessels of fourteen feet at its mouth, but is only navigable by boats a little distance. The town contains 100 houses, and a Protestant and Catholic church. Vessels of 150 tons are built here. Lake Champlain is 120 miles long, but narrow.

Canada. Montreal, 178 miles above Quebec, is on the south side of an island of the same name, which is ten leagues long, and two to four broad. The town is situated at the foot of a hill, and consists of 600 houses of stone, and about an equal number of wood, divided into the upper and lower towns, though the difference of level does not exceed twelve feet. The principal streets are wide and regular, and are intersected at right angles by lesser ones. The houses are well built, and many of them covered with sheet iron or tin, to guard against fires. The public buildings are the market and Hôtel-Dieu; the cathedral and three Catholic parish churches; two Protestant churches; a convent of recollets, and one of the sisters of our lady; a seminary for the education of Catholic clergy; the government-house; and courts of justice. At Montreal is held an annual fair, to which the Indians bring their peltry.

The chief maritime places in Upper Canada are Kingston, at the entrance of Lake Ontario, and York, the capital of the province, on the north shore of this Lake; both are yet inconsiderable, but rising fast into notice.

The trade of Canada is of major consequence to England, the imports from the colony considerably exceeding half a million a year, and in 1808 arose to near £900,000. The following are the principal objects:

	£
Pot and pearl ashes	296,000
Furs	163,000
Flour	100,000
Wheat	31,000
Peas	14,000
Staves	61,000
Oak timber	37,000
Masts	38,000
Lumber	22,000
New ships	37,000
Butter	5,000
Salmon, cod, and other fish	5,000
Sundries, chiefly biscuit, provisions, candles, soap, fish oil, flax seed, and ginseng	91,000
	900,000

Besides the above amount of the trade of Quebec with England, the district of Gaspé, forming the south shore of the mouth of the St. Laurence, exports annually to the West Indies and Mediterranean for £50,000 of cod fish.

The first idea of forming colonies in the new world from France arose in the reign of Francis I., by whom the Florentine Verrazani was sent out in 1523, to examine the north-east coast of America, and who visited Newfoundland and the neighbouring continent; and, in 1534, Jaques Cartier, of St. Malo, visited the same coast, and entered the

Gulf of St. Laurence, where he exchanged some European goods with the Indians for furs.

Eight years after a settlement was made by a company chartered by the crown; and at the same time Francis de la Roque received the pompous title of Viceroy of New France, comprising Canada, Labrador, Nova Scotia, Acadia, Newfoundland, &c. This adventurer built a fort on the river St. Laurence; but in making a second voyage to the infant colony, in 1549, he was lost, and the settlement was abandoned till 1598, when the Marquis de la Roche received the more modest title of Lieutenant of Canada, and went out with forty convicts only, whom he landed on the Isle of Sable, where they all perished of famine and cold.

In 1608 Samuel Champlain ascended the St. Laurence, and laid the foundation of Quebec, intended to be the capital of New France. The progress of colonization was, however, very slow; for in 1627 three miserable settlements only had been formed, the largest of which contained but fifty persons.

The exclusive trade of the colony in furs was now granted to a company in perpetuity, and that of all other commerce (the cod and whale fishery excepted, which were left open to all subjects of France) to the same company for fifteen years. In this company was also lodged the right to form establishments and give them laws, and their imports and exports were freed from all duties. In consideration

consideration of these privileges the company undertook to introduce 16,000 persons into the colonies, between 1628 and 1643, and to afford them the necessary assistance till able to provide for themselves. Canada.

Fortune did not, however, second the encouragement of government. The first ships sent out by the company were captured by the English, and in 1629 the colony itself fell into their hands, but was restored by the peace of 1631.

The management of the company was not, however, calculated to raise it from the state of languor this revolution occasioned, and a sanguinary war with the Indians still more retarded its progress. At length government determining to afford it effectual support, sent out, in 1662, 400 chosen troops, who being reinforced two years after, gained a decided superiority over the Indians; and before 1670 the Seven Nations were forced to enter into an accommodation with the colonists, and a profound peace succeeded. At the same time the trade of the colony was made free, except that of furs, which was continued to the company.

The enjoyment of internal peace, by which the colony was enabled to carry on a lucrative trade with the Indians, rapidly increased its prosperity, until the English, firmly settled in New York, opened a new and more profitable market to the Indian nations for their furs.

The Canadians determined to put an end to this concurrence, and to force the Indians to give up

Canada. their connections with the English; and for this purpose both open force, treachery, and intrigue were made use of, but without success, and the war that was the consequence caused irreparable injury to the colony.

In 1690 an English fleet besieged Quebec, but was obliged to retire, in consequence of the defection of the Indian allies; and another armament intended for the same purpose, in 1709, was dispersed by storms in the Gulf of St. Laurence.

At length the peace of Ryswick, which put an end to the war between the rival nations in Europe, also restored peace to America, but left Canada in a state of wretched impoverishment, the exports, in 1714, not exceeding £10,000.

The enjoyment of peace and the attention of government, however, drew it from this state of poverty, and its increase was so rapid, that in 1788 it contained 91,000 persons.

The war which began in 1756 transferred this, together with the other French colonies in North America, to Great Britain, by conquest, and they were confirmed to her by the peace of 1763.

CAPE BRETON ISLAND.

Cape Breton Island* (*Isle Royale* of the French) is separated from the east end of Nova Scotia by

* Named by Cabot.

by the gut of Canso, or strait of Fronsac, only one mile wide. The island is 100 miles long, and about sixty broad. It is nearly divided by a very deep gulph, called Lake Labrador, into which are two entrances from the north-east, formed by the island Verdonne, seven or eight leagues long. The soil is in general barren, and except in the elevations, full of swamps and lakes, which render the climate cold and foggy, although it is not deemed unhealthy. No kind of grain arrives at maturity, and most kitchen vegetables degenerate. Cape Breton.

The island contains a bed of coal, in a horizontal stratum, six feet below the surface. The population is about 1000 persons, whose entire subsistence is by fishing.

The north coast is elevated and almost inaccessible, but on the east side are several good ports, and on the west and south, several roads and coves for small vessels.

Off the north point of the island eight leagues, is St. Paul's Island, which, with Cape Ray on Newfoundland, from which it is fifteen leagues distant, forms the entrance of the gulf of St. Laurence.

Though this island had been from an early period frequented by fishermen, it was not until France had lost Nova Scotia, that she thought of colonizing it, under the new name of Isle Royale.

The first establishment was at Port Dauphin, but which was abandoned in consequence of the

Cape Breton

difficult access to its harbour, and little capital, removed to Louisbourg, which was fortified at an immense expense; the stone and other materials being conveyed from France. The colonization, however, was very tardy, and chiefly confined to a few French fishermen from Newfoundland. In 1745, the New Englanders attacked and got possession of it, but it was restored by the peace of 1748. In 1758 it was again subjugated by the English arms, and confirmed to Great Britain 1763.

The capital of the island is Sydney, on the east coast.

Louisbourg, on the S.E., is the second place; it has an excellent harbour, four leagues deep, and fit for the largest fleets, but it is closed by ice from November to May. The entrance is but 400 yards wide, between two islands, one of which is fortified, and its fires cross with those of batteries on the main.

The town is built on a projecting tongue of land; the houses chiefly of wood; the streets strait and wide.

The other places of any consequence are, on the east coast, Port Dauphin, Spaniards Bay, Miray Bay; all capable of receiving large ships. Scattery Island, or Little Cape Breton, lies before Monadore Bay, which it shelters. Cape Breton Point, within Scattery, gives its name to the island. South of Louisbourg are Rigua, Halifax and Port Toulouse, the latter only separated from

...from Lake Labrador by an isthmus 800 yards wide.

The furs procured at Cape Breton are inconsiderable; but it has a rich cod fishery in the Gulf of St. Lawrence. The island is included in the government of Lower Canada.

Isle Madame, before the east entrance of the Gut of Canso, is inconsiderable.

PRINCE EDWARD'S ISLAND.

Prince Edward's Island, formerly St. John's, in the south part of the Gulf of St. Lawrence, sometimes called the Gulf of Nova Scotia, is separated from the north coast of Nova Scotia by Northumberland Strait, five leagues wide. It is forty miles long and thirty broad, and has much the advantage of Newfoundland and Cape Breton, in temperature of climate and fertility of soil, being well watered, and producing plentiful crops of corn, and excellent pastures.

In 1803 Lord Selkirk sent out 800 Highland Scots to this island, who seem to form an industrious and thriving colony. In 1807 the total population was 7,000. The island is in the government of Nova Scotia. The chief place is Charlotte Town (Port Joué of the French).

The superior fertility of Prince Edward's Island to any of the neighbouring coasts, together with its salubrious climate and excellent ports, caused the French to turn their views towards

Prince Edward's Island.

wards it shortly after their arrival at Quebec; and in 1619, a company was formed to colonize it, and to establish a cod fishery in the Gulf of St. Laurence. This scheme, however, was never executed, and the island remained neglected until 1749, when some emigrants from Nova Scotia settled on it, and occupied themselves in agriculture and rearing cattle, the fisheries being prohibited to them. Thus confined to one branch of industry, cultivation was carried to an extent that gained the island the name of the Granary of Canada.

On the subjugation of Cape Breton to the British arms in 1758, this island followed its fate, and also became a British colony. The first measure of its new masters was more politic than just, the removal of all the French settlers who amounted to 3,000. The island being thus left without inhabitants, the Earl of Egmont proposed to government to colonize it, and to keep up a force of 1,200 men for its defence, on condition of receiving the feudal rights; but such a cession being declared contrary to a law enacted at the restoration, which prohibited the granting of crown lands under military tenures, the offer was refused, and government, after the peace of 1763, distributed the land in grants to the disbanded officers and soldiers.

Until 1774, the island was included in the government of Nova Scotia; but in that year it was, with Cape Breton and the Magdalen Islands, formed

formed into a separate government, with a governor, council, and house of assembly. Prince Edward Island.

The Magdalen Islands are a cluster of seven in the Gulf of St. Laurence, seventeen leagues west of the north and of Cape Breton Island. They are all rocky, and the largest only five leagues in circuit. They are the property of Admiral Sir Isaac Coffin Greenly, and inhabited by a few descendants of the French, who quitted Nova Scotia on its cession to England, and who subsist by fishing and hunting seals.

ANTICOSTI ISLAND.

The Island of Anticosti,* in the mouth of the river St. Laurence, is twelve leagues distant from the main land on the north, and sixteen from the coast of New Brunswick on the south. It is 120 long. N.E. and S.W. and 30 broad; is extremely rocky, but well wooded, and a considerable cod fishery is carried on from it. The island is of little value, the soil being barren, and not possessing a single safe harbour. It is generally flat towards the shores, but rises a little towards the centre. Its only inhabitants are an occasional party of savages, who winter on it for the purpose of hunting. It is the property of some private individuals of Quebec.

The Mingan islands are close to the main within Anticosti; they have a good harbour and a considerable

* An English corruption of the native name *Natiscotee*; by the French it was formerly called Assumption.

siderable cod fishery. The rise of tide is ten to twelve feet.

NEWFOUNDLAND.

The island of Newfoundland is separated from Labrador on the north by the Strait of Belle Isle, six leagues wide, and named from an island in its entrance.

Newfoundland is eighty leagues long, and upwards of sixty broad; it is hilly, but not mountainous, and has some considerable rivers. The island throughout is rocky and barren, naturally producing only small firs, birch, and other plants, that thrive in cold and barren countries. The winters are besides so long, not breaking up till May, that oats is the only corn that ripens. The climate is also extremely disagreeable, from constant fogs and storms of sleet and snow. The interior of the island has never been explored, but from the accounts of the natives it is mountainous and covered with wood. The coasts are indented by a vast number of excellent bays and harbours, a very few of which are ever visited even by the fishermen. The sole utility of this island to Great Britain is its serving as a rendezvous for the vessels employed in the fishery on the neighbouring banks.

The whole number of stationary European inhabitants of the island does not exceed 1,000 families. A few families of miserable Esquimaux visit the island from the neighbouring coast of Labrador, and remain on it for a part of the year.

The

The value of exports from Great Britain to Newfoundland is between three and four hundred thousand pounds a year, entirely in provisions, cloathing, fishing tackle, and salt. Newfoundland.

In the spring a small squadron, composed of a fifty gun ship, a frigate, and one or two sloops, are sent from England to protect the fishery; and the admiral commanding the squadron is governor of the island for the time being. The Lieutenant-Governor's office is permanent.

St. John's, the chief place of the island, is on the east side, and on the shore of a fine basin, whose entrance is only 500 yards wide, between high rocky shores, and strongly fortified. The town is a poor place, the houses being mean and the streets narrow and filthy. Fort Townsend, on an elevation, contains the government house, magazines, and barracks.

The other places of the island worthy of notice are, on the east coast, from north to south, the Bay of Exploits, or New Perlican, a capacious harbour. Ragged Harbour, in Catalonia Bay, named from the craggy islands in it. Trinity Bay, a gulf, with many harbours and coves fit for the largest fleets. South of St. John's is the Bay of Bulls.

Renows Bay, much frequented by the fishing vessels; its depth is only eleven feet. Cape Race is the S.E. point of the island.

On the south coast are Trepassy Bay, a deep and secure harbour. St. Mary's Bay, has some good fishing banks within it. Placentia Bay,

twenty

Newfoundland.

twenty leagues deep and sixteen wide, is a great gulf, with several harbours. That of Placentia, on the east shore, is one of the chief drying places of the fishermen, and has a fixed establishment, defended by a fort. Between Placentia and Cape Raye, the S.W. point of the island, are the Bays of Fortune and Despair, little frequented.

The banks of Newfoundland, which may with propriety be called the Peru of Great Britain, from the riches they bring into the kingdom, consist of one great and some lesser ones, extending from the latitude 40° to 45°.

The depth is very irregular, from fifteen to sixty fathoms. The bank is entirely of sand, its edges perpendicular, and on the east is a great gulf, or concavity, called the Ditch. The winds are generally moderate, and the water smooth on the bank, however hard it may blow beyond its limit;* but the atmosphere is obscured by an almost perpetual fog, both of which circumstances seem to arise from the same cause, the strong evaporation over the bank, which while it produces a fog, also cools the atmosphere beyond that over the

* Mr. Pennant, in his Arctic Zoology, says, there is always a great swell on the banks. The fact is, however, that on the edges of the bank there is usually a hollow sea, caused by the polar current on the north and the gulf stream on the south, striking with velocity against the perpendicular edges of the bank. At a small distance within these edges, on the contrary, the water is so smooth, that it is usual for vessels on the bank fishing to inquire of those from sea, what kind of weather it is abroad, that is, before their arrival on the bank.

the open sea, and consequently the air from the latter is not attracted towards the former.* Newfoundland.

The banks of Newfoundland are the grand rendezvous of the great cod (*gadus morhua*) which arrive in the month of July in vast shoals. In August they become scarce, in consequence of the departure of the herrings and capelings, on which they feed; and also from the arrival of the sharks, which drive all other fish away. In September the cod re-appear, and continue till the middle of October, when the fishing season terminates.

The fish are either cured wet or green, or dry. In the first case they are salted on board the vessels as they are taken, and brought to Europe without touching at Newfoundland. The vessels intended to bring home dried fish go into some port of the island, where stages are erected on the shore, on which the fish are placed to dry, after cutting off the head, emptying them, taking out the back bone, and strongly salting them.

The livers of the cod afford a large quantity of train oil, which is procured by simply exposing them to corrupt by the sun's heat, by which the greatest part of their substance runs into oil.

The

* The quantum of evaporation being in proportion to the extent of surface and depth of the evaporating mass, it follows that this quantum will be greater over banks than over the deep sea, and the atmosphere consequently colder; and this last consequence is proved by the repeated observation, that the coming from the deep sea into soundings, or on a bank, is denoted by a sudden fall of the thermometer of from three to five degrees.

Newfoundland.

The capeling, which is the only bait used to take the cod, is of the genus *solano*, and the consumption is so great, that they are often entirely exhausted near the coasts, and it is found necessary to go twenty leagues to sea for them. They are taken in nets.*

Off the south coast of Newfoundland are the isles Miquelons and St. Pierre, by treaty belonging to France. The Miquelons are two islands named Great Miquelon and Langley. The former is a mere rock, only two miles long. St Pierre is of more consequence, being twenty-five leagues in circuit, with a good harbour on the south for fifty small vessels. The Virgin Rocks, twenty leagues S.E. of Cape Race, are a reef above and under water.

Though Newfoundland was formally taken possession of for England, by Sir Henry Gilbert, in 1583, and though before that it was the rendezvous of fishing vessels of all nations of Europe, it was not until 1615 that any settlement was formed on it, in which year the English established some permanent posts on the east coast, and particularly at St. John's. Subsequent to 1635 the French formed an establishment at Placentia, and continued to send governors thither till the peace of Utrecht, when they relinquished all claim to the island.†

NOVA

* For further details see British Fisheries.

† Their claim was founded on the pretended occupation of a part of the island

NOVA SCOTIA.

The country named Nova Scotia is divided into the provinces of New Brunswick and Nova Scotia proper.* The former is separated from the Canadian district of Gaspé by the Bay of Chaleurs. On the east it has the Gulf of St. Laurence; and on the south the Bay of Fundy, being separated from the United States province of Maine, by the river St. Croix.

The climate of Nova Scotia is severe, the winters being intensely cold, and the summers foggy, damp, and unhealthy. The soil is in general thin, and fitter for pasture than agriculture. The greater part of the country is covered with wood, affording the timber called lumber; which, together with its fishery, constitutes its only riches. The coasts are rocky and broken by innumerable bays, forming excellent harbours. The most worthy of notice are, Chaleurs Bay, which is many leagues deep, and which being well situated for the fishery in the Gulf of St. Laurence, has many fishing stations on its shores. The island Bonaventura, north of the bay, is inhabited by a few persons, who winter on it merely to preserve the right to the neighbouring

A VOY

island at the beginning of the sixteenth century; but there is no proof of this occupancy, though it seems certain that their subjects fished on the coasts shortly after the discovery of the island. Besides they acknowledged the supremacy of England, by submitting, in 1634, to pay five per cent. on the produce of their fishery.

* This division took place in 1784.

New Brunswick.

ing fishing grounds. The pierced rock, south of this island, at a distance resembles a ruined aqueduct. It is 400 yards long, 200 feet high, and is perforated in three places in the form of arches; through the central and longest of which a boat can pass under sail.

Green Bay, in Northumberland Strait, forms the narrowest part of the isthmus of Nova Scotia, being but four miles from the head of the river Missaquash, which falls into the Bay of Fundy.

The Bay of Fundy (*Baie Françoise* of the French) is fifty leagues long. It is chiefly remarkable for the strength and height of the tides, which are said to run up the creeks with immense velocity, in a kind of bore, whose elevation is from fifty to seventy feet.

The river St. John, or Clyde, the principal one of the province, falls into the Bay of Fundy, and is navigable for vessels of sixty tons, fifty miles, and for boats 200; the tide flowing up it eighty miles. It abounds in small sturgeon, salmon, and bass; and its banks are level and fertile. Frederick Town, the capital of the province, is on this river, ninety miles from its mouth.

Passamaquody Bay, the western limit of the province, receives the river St. Croix. Before it are the Manan islands, asserted by the Americans to be within their limits, but occupied by the English.

Nova Scotia.

The peninsula of Nova Scotia is joined to New Brunswick by an isthmas, as we have already observed,

served, four miles broad. On the north it has the Gulf of St. Laurence, the Atlantic on the south, and the Bay of Fundy on the N.W. It has a great number of bays and harbours, the principal of which are Chedubucto Bay, at the east extremity, Cape Canso being its south point, off which are a group of islands, partly formed of gypsum. On the bay is the town of Guy's Borough, of about 200 houses. Nova Scotia.

Halifax, on Chebucto Bay, on the south coast of the peninsula, is the chief place of the province, containing 15,000 inhabitants. It is situated on the west shore of the bay, and is fortified by batteries of timber, and an intrenchment. It is the station of a small squadron of ships of war to protect the fishery. On Cape Sombro, at the entrance of the bay, is a light-house.

Shelburne, on Port Roseway, is a town of 500 houses. Annapolis Royal, the second town of the province, on the north coast, in the Bay of Fundy, has one of the finest harbours in the world, but is a poor place. The river of Annapolis is navigable for vessels of 100 tons fifteen miles.

Chignecto Bay is a deep inlet, at the head of the Bay of Fundy, into which falls the river Missiquash.

Two tribes of Indians are met in Nova Scotia, the *Miamacs* in the peninsula, who do not exceed 900 warriors, and the *Marechites* in New Brunswick, whose number is only 180.

The trade between Great Britain and these provinces consists in the export of linen, woollens,

Nova Scotia. lens, and fishing gear chiefly, for £30,000 a year, and the import of lumber and fish for £40,000.

Isle of Sable, twenty-five leagues distant from Cape Canso, the north-east point of Nova Scotia, is composed entirely of sand-hills, in the shape of sugar-loaves, 140 feet high, and white as milk with white transparent stones: it is of a semi-circular shape, being ten leagues in circuit, but very narrow.

On the north, or concave side, is a shallow lake, five leagues in circumference, and communicating with the sea. It has no port, but has some ponds of fresh water, and produces juniper, blue-berry bushes, grass, and vetches. Many vessels have been wrecked on this island, and the people have perished of hunger. In order to render it less dangerous, the government of Halifax, in 1809, sent a party of people to settle on it, in order to shew fires during bad nights, and to afford assistance to those who may be shipwrecked on it.

The peninsula of Nova Scotia was first settled by the French in 1604, who gave it the name of Acadia. Their original establishment was at Port François, on the west coast, and the first colonists occupied themselves solely in trading with the Indians for furs, or procuring them by the chace themselves. The vicinity of the British colonies of New England, however, produced here, as well as at Canada, a destructive concurrence in the Indian trade; and, on the part of the Acadians, similar attempts to irritate the In-

dians

claims against the English, while the latter re- Nova Scotia.
torted on the French settlements, whenever the disputes between the two nations in Europe permitted them to commence open hostilities.

After being taken by the English, and restored several times, Acadia was finally ceded to Great Britain by the peace of Utrecht. Very few English, however, settled on it, and with the exception of change of name to Nova Scotia, no alteration was made in the government; the French colonists being maintained in possession of their laws and religion, and were besides permitted to remain neuter in any wars between France and England.

In 1746, the French attempting to regain possession of the province, and the colonists breaking their neutrality, the British government determined to colonize it efficiently, and at the peace of Aix la Chapelle (1748) the disbanded officers and soldiers were encouraged to emigrate thither by grants of land according to their respective ranks.

These encouragements induced 3,750 persons to embark for the colony in 1749, who founded the city of Halifax. The French colonists fearing a persecution from the new government and colonists, on account of their religion, and being also encouraged by the Canadian government, generally retired from Nova Scotia to that province, while the English, equally anxious to get rid of them, removed the remainder to the other English colonies. In 1769, the population of the

Nova Scotia. colony had increased to 26,000 persons, by emigrations from England and Germany; and in the same year its exports amounted to £30,000. The American war still farther increased the population, by the emigration of loyalists from the insurgent colonies, and gave an extraordinary impulse to its commerce and cultivation, by the demands of the British fleets and armies.

The following were the sums voted in 1814 for the civil establishments of the British North American Colonies.

	£
Lower Canada *	
Upper Canada	8,441
Nova Scotia	13,440
New Brunswick	5,775
Cape Breton Island	2,144
Prince Edward's Island ..	3,826
Newfoundland	4,002

* In 1803, the revenue and expenses of Lower Canada were,

Revenue..... £31,241
Expenses 43,220

About three quarters of the expenses are defrayed by the province, and the remainder by the mother country, who also pays the military establishment, and supports the Protestant clergy and Indian establishments.

RISE AND PROGRESS

OF THE

EUROPEAN COLONIES IN NORTH AMERICA,

FORMING

THE UNITED STATES.

THOUGH England had an undoubted claim to the sovereignty of considerable portions of the north-east coast of the continent of America, discovered by Sebastian Cabot and other navigators in her service, it was not until late in the sixteenth century that she made any attempt at colonization on this coast. The restless and enterprising genius of Sir Walter Raleigh first gave birth to the idea, and he found no difficulty in inspiring a number of his friends with the same sentiments, who, incorporating themselves into a society in 1584, received a patent from the crown, authorizing them to form establishments on the east coast of the new continent. Two vessels were accordingly dispatched by this society in 1585, with an intention of founding the first settlement on the Chesapeak, but steering too far south, they arrived at the Bay of Roanoke, in the province afterwards called Caro-

lina, to which they then gave the name of Virginia, in honour of the queen, and this name was afterwards extended to all the coast on which the English formed settlements.

The two vessels, after conciliating the Indians of the Roanoke, returned to England, and from the favourable account given by them of the country the society determined to make it the seat of its first settlement. In 1586, seven vessels and 108 emigrants quitted England for this purpose, and arrived safely at their destination. These adventurers, however, soon quarrelling with the Indians, the latter attacked and massacred the greater part of them, and the remainder having neglected to provide for their subsistance by cultivation, were on the point of perishing by famine, when Sir Francis Drake arrived with succours; but the miseries they had already suffered, left no inclination in the survivors to remain, and they accordingly embarked for England in the admiral's fleet.

This failure, however, did not extinguish the projects of the society, who continued to make some trifling efforts to establish a colony at the same place, and in 1588, 115 persons were settled there, and in possession of whatever was necessary to subsistance, defence against, and trade with the Indians. The disgrace of Raleigh, the chief promoter and support of the colony, however, caused it to be neglected, or rather totally abandoned, until 1602, when Gosnold, one of the associates, determined to visit it; but as the

the first adventurers had steered to the south of their intended point, Gosnold steered as much to the north, and instead of the Roanoke, made the coast since named New England, from whence, after procuring by barter a considerable quantity of valuable furs from the Indians, he returned home.

The profits and rapidity of this enterprize, encouraged the merchants of London to enter into a new society of colonization, and in 1606 it commenced its operations, under the name of the North Virginia, or Plymouth Company, while the ancient association received that of the South Virginia Company. Neither of these societies, however, pushed their efforts at colonization with any degree of vigour, for in 1614 both establishments contained but 1,400 persons.

At length the religious intolarence, which towards the close of the reign of James I. began to set England in a flame, laid the first solid foundation of the English population of America. The puritans, persecuted by the established church, fled to the new world, in whose unexplored deserts they hoped to enjoy that civil and religious liberty denied them in their native country. The year 1621 was the epoch of their first emigration, when 121 persons of this persuasion, having purchased the territory within the jurisdiction of the Plymouth Company, landed on the coast of North Virginia, to which they gave the name of New England. Every thing opposed their first efforts, arriving

arriving at the commencement of winter in a country whose climate is at that season extremely severe, and which they found covered with immense forests, rendered impenetrable by underwood, and spontaneously producing neither fruit nor vegetables for their subsistance, and but thinly inhabited by savages, who possessing no idea of agriculture, but living solely on the produce of the chace, could afford them no assistance. It is not to be wondered at, that fatigue, cold, hunger, and the scurvy, carried off more than one half of these first colonists. The remainder were languishing out a miserable existence, when the spring brought to the coast a party of Indian warriors, who instructed them in the cultivation of Indian corn, and in the most successful manner of fishing, by which they were enabled to subsist, until succour arrived from England.

From the Indians they also received a grant of the lands bordering on their little establishment, which they named New Plymouth, and the territory ceded to them Massachusets. The colonists received a charter from the king, by which they were permitted to choose their own governor and magistrates, with the power of making laws for their government, independent of the mother country. They accordingly created a governor, council, and house of representatives. The fundamental principle in the formation of this last assembly, was a declaration of intolerance in the absolute exclusion of all but puritans. Such is the

the contradiction in the moral nature of man, that the chains he flies from himself, he rivets round the necks of his fellow creatures.*

The emigrations from England were not, however, at first considerable, for in 1629 the number of colonists only amounted to 300 persons. In that and the succeeding years, such numbers fled from religious persecution in England, that the population increased rapidly; but unfortunately, many of them found the same spirit of persecution raging in the country where they expected to find an universal charity. This obliged them to seek new dwellings, and gave rise to the three new provinces of New Hampshire in 1629, of Rhode Island and Connecticut in 1635. The four provinces of New England, as soon as religious disputes had began to subside, formed a confederation for their mutual defence, and the new ones received similar charters to that of Massachusets.

The first laws of the New Englanders were such as might be expected from the austere principles of their framers. Witchcraft, blasphemy, adultery, perjury, and murder, were confounded as crimes of an equal die, and punished with death; and the same penalty was decreed against a child who should presume to strike, or even

* The peaceful quakers were not even exempted from this excommunication, but were publicly whipped, and then banished the colony; and those who returned were condemned to death.

even to curse a parent. Lying, drunkenness, and *dancing*, were punished by public whipping; and cursing, relaxation of public devotion, or the non-observance of the sabbath, by heavy fines. Zeal was carried so far, that the names of the days of the week, and of the months, were changed, as having a Pagan origin; while the Saints were deprived of that appellation, and reduced to their simple names, in order to avoid the smallest appearance of similarity with the church of Rome. On the same principle, the mere bending the knee to an image was a capital crime; and Catholic priests who should return to the colony after banishment, were also doomed to suffer death. Even things totally indifferent in themselves, were prohibited as religious profanations; among the rest, wearing long hair, which a particular edict made punishable in the men; while the women were forbidden to expose their arms or neck, their gowns being all of one shape, with the sleeves to the wrists and the collars up to the chin. The mode of courtship, the manner of carrying the head, the arms, how to speak, look, and walk, were all rigorously prescribed; in short, as the climax of absurdity, it was forbidden to brew on Saturday for fear the beer should *work* on the Sunday.

In our enlightened days we can scarcely believe the enormous excesses to which the most vile superstition gave rise in this part of the new world, were they not attested by all the historians of the times.

times. Sorcery became the watch-word to bloody sacrifices, and in 1692 upwards of thirty persons were convicted of this crime and executed. Neither the innocence of youth, the infirmities of age, the modesty of the sex, the dignity of rank, of fortune, or of virtue, were sufficient protection against the suspicion of this imaginary crime. Children of ten years of age were put to death. Young women were stripped naked, and publicly examined for the marks of infernal agency. Torture was applied to extort confession, and the gibbets kept prepared to finish the torments of those from whom the torture forced a false acknowledgment. In short, the colony seemed to be arrived at the moment of total dissolution, when, in the very height of the storm, as if by the immediate interposition of the Divinity, the eyes of the people were suddenly opened, and confidence and peace succeeded to suspicion and despair. The reflection on the horrors that they had been engaged in, was attended with the most piercing remorse, and by a general fast and public prayers they endeavoured to conciliate that merciful Divinity, in whose name they had spilt so much innocent blood.

But though these blood-written laws have been long abrogated, their effects are still visible amongst the New Englanders, the women being distinguished by their grave and silent demeanor, and by a starched frigidity of manners, that repulses every idea of social intercourse; while the men are marked by a silent reserve, a habit of dissembling,

bling, and a dereliction of truth, but at the same time by an energy of sentiment and action far beyond the other people of the Union.

The limits of this sketch confining us to a mere chronological outline of the establishments in America, from their first foundation till their arrival at stability, we must here take leave of New England, and turn our view to Virginia, the second colony, in point of time, established by England in the new world.

VIRGINIA.

The name of Virginia was, as we have already observed, originally given to all the east coast of North America, visited by, or known to the English; but when the settlements were multiplied, this denomination was confined to the country between Maryland and Carolina.

The company of North Virginia first attempted an establishment on this coast in 1606, in which year Jamestown was established; but the colonists having unfortunately discovered a rivulet in the neighbourhood, the sand of which abounded in particles of *talc*, they mistook this substance for silver, and every other pursuit was neglected for that of collecting this useless dust, with which the two first vessels that arrived from England with provisions were loaded on their return.

The neglect of cultivation, the consequence of this ignorance and folly, produced a famine, that

spared

spared but sixty persons of 500 that arrived in the colony; and these were about to abandon it, and seek refuge at Newfoundland, when in 1609 Lord Delaware, who had accepted the government, arrived with a reinforcement of colonists and a supply of provisions. The eminent abilities of this nobleman restored the colony, and put it on a respectable footing; its progress was, however, retarded by the monopoly of the company, until the latter was dissolved by Charles I. and a royal government substituted.

During the civil wars, the population of the colony increased rapidly by emigrations of loyalists, who being in general persons of education and property, at once introduced those principles of civil society, which were so long unknown in the other colonies, of which the first settlers were either desperate adventurers, criminals, or ignorant bigots.

The colonists of Virginia being composed chiefly of royalists, resisted the parliamentary domination even after the murder of Charles I., and at last were reduced only by the treachery of some of their own members, assisted by a formidable fleet of the commonwealth. The same spirit remained unextinguished during the usurpation of Cromwell, and the Virginians first proclaimed Charles II. in America.

But though the Virginians were loyal, they were too high spirited to suffer oppression, and in consequence of some arbitrary acts of the government at home, a young officer, named Bacon, raised

raised the standard of insurrection in the colony, and serious consequences were to be apprehended, when the death of their leader restored tranquillity, and soon after their constitution received a more popular form, by the addition of a body of representatives, elected by the people.

CAROLINA.

The first attempts at colonization on the coast now called Carolina, were, as we have seen, unsuccessful, and it was not until past the middle of the seventeenth century that this object was resumed.

In 1663 a society of noblemen and gentlemen received a grant of this country from Charles II., and the celebrated Locke was requested to frame a constitution for the intended colony, which proved to be founded on very different principles from what might have been expected from the philosophic investigator of the human mind. The first principle of his constitution was a general religious toleration; but at the same time obliging every person above seventeen years of age to choose his communion, and to register himself a member of it. The civil liberty of the colonists was left much more unguarded than the religious, the whole authority, legislative and executive, being lodged in the eight proprietors, who were to create three classes of nobility, according to the quantity of land granted them. The first class

class was confined to two individuals, named Landgraves, who received 80,000 acres each. The second class, named Caciques, were to receive 24,000 acres; and the third, or barons, 12,000 acres. The numbers of the two latter were unlimited. These possessions were never to be alienated in detail, and the proprietors were to form a house of peers. A house of representatives, named the court palatine, but with very limited authority, was also created. In spight of the defects of this constitution, the colony (which had established its capital at Charlestown) had arrived at some degree of solidity, when, in 1705, it was thrown into confusion by religious disputes, and by a bloody war with the Indians; the former were soon settled by the interference of the mother country, and the Indians were quieted. But the colonists had still sufficient obstacles to encounter, in the oppression of the proprietary government, and their complaints increasing with their numbers, the government at last found it necessary to resume its grant, which it purchased from the proprietors for the sum of £24,000, all, except Lord Grenville, surrendering both their jurisdiction and their territorial property. This nobleman chose to retain his share of the latter, and his family enjoyed it till the American revolution. The province now received a similar government to that of Virginia, and it was also separated into two provinces, called North and South Carolina.

NEW YORK.

In point of time, the colonization of New York, New Jersey, and part of Pennsylvania, succeeded to that of Carolina.

These coasts were first taken possession of by the Dutch, in 1614, and received the general name of the *New Netherlands*; and the present province of New York, that of *Nova Belgia*. The claim of the republic to the sovereignty of this country was founded on its discovery by Hudson, when in their service; but James I. asserted his superior right, from Hudson's being a British subject. The disputed object was, however, deemed of so little consequence, that James, though he never relinquished, did not attempt to enforce his claim, and the Dutch were permitted quietly to form some establishments for the purpose of trading with the Indians for furs; the monopoly of which was granted to the West India Company. The principal post of this Company was first at *Fort Orange*, since named Albany, on Hudson River.

In 1620 the citizens of Amsterdam conceiving that a colony might be advantageously established on this coast, purchased the privileges of the West India Company for about £30,000, and *New Amsterdam* was immediately founded on the island Menahatan, at the mouth of the Hudson. This city had already made a rapid progress in 1664, when an English hostile squadron appearing before it, it surrendered at the first summons, and, with

the

the whole colony, fell into the hands of the victors, to whom it was formerly ceded by the peace of Breda in 1667, when both the chief city of New Amsterdam, and the whole colony, received the name of New York, in honour of the Duke of York, to whom the king granted it by letters patent, immediately after its conquest.

In 1673 the Dutch again got possession of it, but were obliged to restore it the following year. On the accession of James II. it became vested in the crown, which appointed a governor and council to administer its affairs; but on the revolution, its constitution was new modelled, by granting it an elective House of Representatives.

NEW JERSEY.

New Jersey was first settled by the Swedes in 1638, who gave it the name of *New Sweden*, and formed three small establishments, called *Christiana*, *Helsinborg*, and *Gothenburg*; they, however, never arrived at any consideration, and in 1655 they were seized by the Dutch, and incorporated with *Nova Belgia*. When the latter became the property of the Duke of York, he again separated New Sweden, and granted it to Sir George Carteret, and Lord Berkely, who gave it its present name. These proprietors sold the land, in tracts of different dimensions, to the highest bidders, retaining only the chief government and re-

galities, and these they ceded to the crown in 1702, when the province received a similar government to that of New York.

MARYLAND.

The persecution the catholics experienced in England, towards the end of the reign of Charles I., induced Lord Baltimore, a peer of that persuasion, to seek for liberty of conscience in America, and he fixed on that point yet unoccupied by Europeans, between the Delaware and the Potowmack, of which he received a grant from the crown: but by the death of this nobleman, the execution of the plan devolved on his son, who quitted England in 1663, with 200 catholic families, many of them of distinction.

The territory they intended to occupy was purchased from the Indians, and received the name of Maryland, in honour of the queen of Charles I. The liberal principles arising from the superior education of the first colonists, induced them to make religious toleration the basis of their government: in consequence of which, and their conciliatory manners towards the Indians, the colony was already in a flourishing condition at the death of Charles I. Cromwell deprived Lord Baltimore of the government and property of the colony, which were restored by Charles II. but again wrested from the family by James II. William reinstated them in the property and profits of the government

government only, their religion rendering them ineligible to the functions: on their becoming protestants, they were also restored to the latter, and until the revolution, the governor continued to be appointed by the family, but with the approval of the crown.

PENSYLVANIA.

Though the territory at present named Pensylvania was originally claimed by the Dutch, as a part of the *New Netherlands*, it remained unsettled by any Europeans till 1681, when William Pen, the most celebrated of the then newly sprung up sect of quakers, led thither a colony of his countrymen and brethren. The father of Pen had been an Admiral in the English service, and had been employed by the Protector, and the two last of the Stuarts, in several expeditions, in conducting which he had made considerable pecuniary advances to government, which it not being convenient to repay, he was offered, as a compensation, the vast extent of territory in America, which forms the province that bears his name. The Admiral accepted the grant, but dying shortly after, left the execution of his design to his son, who determined to found a colony on the purest principles of civil and religious liberty. He soon collected 2,000 persons, chiefly of his own sect, with whom he sailed from England and landed in the Delaware. Pen, not quite

satisfied with the title which the grant of the British King gave him, to a country already occupied by man, entered into a negociation with the Indians, and concluded a bargain, by which they ceded to him all the lands he desired. Though this bargain was entirely in favour of the purchaser, who, taking advantage of the ignorance of the savages, dictated his own price, which bore no proportion to the value of the cession, it was sufficient to quiet the conscientious scruples of the benevolent quaker, and enabled him to proceed to the establishment of the colony free from all remorse. His laws were, as might be expected from such principles, founded on the unalienable rights of man, the liberty of conscience, impartial justice, and security of property. For though he established the hereditary government of the colony in his own family, he put it out of the power of his successors to interfere in the legislation, by confiding the latter to the representatives of the people, chosen by secret ballot, to prevent corrupt canvassing. The agreement of the majority of this assembly was sufficient to enact a law; but that of two-thirds was necessary to impose a tax. The land was distributed in lots of 1,000 acres, to those who could purchase it, at the small price of eighteen pounds ten shillings; and those who had not that sum received a grant in perpetuity of fifty acres, for each member of a family, at the annual rent of one penny halfpenny the acre.

In order to introduce a general habit of in-

dustry, it was enacted, that every child, of whatever rank or condition, should, at the age of twelve years, learn a profession; and to check litigation, arbitrators were appointed in every district, and it was strictly forbidden to receive any pecuniary recompense for pleading in the courts of justice. Such simple and just regulations could not fail of the desired end, and accordingly the infancy of the new colony was free from those convulsions and dissentions which tore to pieces the more ancient ones, and so long retarded their progress.

GEORGIA.

The colonization of the province of Georgia, originally considered as a dependance of Carolina, was commenced by the benevolence of an individual, who bequeathed his fortune to the relief of insolvent debtors. Government seeing no better way of accomplishing this end, than that of sending the persons restored to liberty, and who had no means of living in England, to seek an honest subsistence in a country whose soil was yet a stranger to cultivation, granted an addition of £10,000 to the bequest, which was still farther increased by a considerable private subscription, and a sufficient fund being obtained, General Oglethorpe was entrusted with the execution of the plan.

In 1736 this officer quitted England with the

first colonists, consisting of 100 persons, and founded the town of Savannah. The following year 491 persons were sent out at the expense of the fund, and 167 who paid their own expenses; and in 1735 the colonists were still further increased by some Highlanders, who received a grant of land on the banks of the Alatamaha, on condition of defending the frontiers of the colony against the Spaniards of Florida. Here they founded the town of Darien. In the same year, a considerable number of protestants, driven from Saltsbourg in Germany by religious persecution, fled to Georgia, and founded the town of Ebenezer, on the Savannah, sixteen leagues from its mouth. The colony, however, in its infancy, languished under difficulties both physical and moral, the first proceeding from the climate, which was greatly against any considerable advances in cultivation by Europeans, and the latter arose from the defects of the government, and the oppression of the governors. The whole power was vested in a few proprietors, who enacted such regulations as placed the colonists in a state of absolute servitude: while they withheld from them several of the privileges granted to the neighbouring colonies, in particular the importation of slaves and of rum. As the colony increased, these evils became less supportable, and the discontent arose to such a height, that in 1752 government found it necessary to abolish the proprietary government, and put the colony on the same footing as the Carolinas.

FLORIDA.

Under the general name of Florida, the Spaniards originally pretended to include all the coast between the Gulf of Mexico and New England; while the other nations of Europe confined it to the peninsula between Georgia and the Mississipi. This country was, as we have elsewhere observed, discovered by Juan Ponce de Leon in 1512, but was neglected until 1564, when the French Huguenots formed a small settlement, from which they were driven the following year by the Spaniards, who feared the vicinity of so enterprising a neighbour.

The Spaniards formed their chief establishment at St. Augustine, but their progress was extremely slow, and it was not until 1696 that Pensacola was founded. By the peace of 1763 the province was ceded to Great Britain, in exchange for the Havannah; at which time its population was only 600 persons, who quitted the colony, and retired to Cuba. England divided the territory into two provinces, named East and West Florida, and separated by the Apalachicola, St. Augustine remaining the capital of the former, and Pensacola of the latter. The first English colonists were principally disbanded officers and soldiers, who received grants of land in proportion to their ranks. A number of emigrants also arrived from the Carolinas and Georgia, and the population was increased by a colony of

Greeks

Greeks from the Morea. In 1767 Doctor Turnbull, a considerable proprietor in Florida, conceiving that this people would gladly seize any opportunity of escaping from the despotism of the Ottoman government, visited the Morea, and offered its inhabitants an asylum in Florida. Considerable numbers listening to his proposals, he purchased permission from the Turkish governors to embark them at Modon, and touching at Corsica and Minorca, he there also picked up some recruits, with whom he set sail for America, and landed them, to the amount of 1,000, in East Florida, where they received amongst them 60,000 acres of land. With the exception of the first mortality from change of climate, which carried off about one quarter of their number, this attempt was successful, and the Greeks formed a society, which was rapidly improving in wealth and numbers, when in 1781 both Floridas were reduced by the Spaniards, and confirmed to them at the peace of 1783.

LOUISIANA.

The coasts of the country, at present named Louisiana, were considered by the Spaniards as part of Florida, but were scarcely known to them; and it was not until 1660 that the French, from the relations of some of the Indians bordering on Canada, became acquainted with the existence of the great river Mississippi.

In

In 1678 La Salle, a Canadian, conceived the first idea of establishing a colony on the banks of the river, and for that purpose repaired to France; where, having procured the sanction of the government, and raised a few followers, he returned to the Mississipi, and formed the establishment of Fort Louis, at the junction of the Missouri; from whence he proceeded down the river in canoes to its mouth. When returning to France to announce his discovery, the government accorded him four small vessels, with 200 persons, composed of soldiers, mechanics, priests, and *women of the town*, with whom he sailed from La Rochelle in 1684, but steering too far to the westward, passed the mouths of the Mississipi and made the land of St. Bernard's Bay. Here a dispute arising between La Salle and the commander of the ships, the latter determined to separate, and the colonists who chose to follow the former, to the number of 170, were landed. La Salle employed several months in examining the rivers which fall into the bay, some of which he supposed might be branches of the Mississipi; but being disappointed in these hopes he determined to penetrate into the interior, in search of the fabulous mines of St. Barbe, and was engaged in this pursuit, when in 1687 he was assassinated by some of his own people.

The death of their chief destroying all subordination among his followers, some were miserably cut off by disease, others falling into the hands of the Spaniards, finished their days in the mines

of

of Mexico, while the savages surprizing a post they had formed, massacred all those they found in it; so that six individuals only, of the 170, escaped to the country of the Illinois, and thence found their way to Canada.

After this unfortunate attempt, the Mississipi was neglected till 1698, when Yberbille, a French naval officer, recalled the attention of his government towards it, and was himself sent out with two vessels, and a few colonists, with whom he first ascended the river, and established a port at the Natches; then again descending, he fixed the remainder of the people at Biloxi, on the east coast of the river's mouth. Two years after, fresh colonists arriving, the port of Biloxi was abandoned on account of its sterility, and the establishment fixed at Fort Dauphin, near the mouth of the Mobile.

The death of Yberville in 1706, again caused the total neglect of the infant colony, and the greater number of the people abandoned it; twenty-eight families only remaining in a state of misery in 1712, when Crozet, a private merchant, received a grant of the vast country watered by the Mississipi, and which on the expedition of Yberville had received the name of *Louisiana*.

The avidity of Crozet causing the failure of all his schemes, in 1717 he sold his grant to the Mississipi Company. The celebrated Law proposed, by means of a national bank, to pay off the enormous public debt of France, and might

possibly

possibly have succeeded, had the necessary reformation been at the same time made in the public expenditure; but being obliged also to find ways and means of continuing to supply the enormous extravagance of a licentious court, he was under the necessity of having recourse to another scheme; and the Mississipi opportunely offered itself for the purpose. Juan Ponce de Leon, in his visit to America, not finding the miraculous spring he sought for, indemnified himself for the disappointment, by the pretended discovery of inexhaustible mines of the precious metals, which he named the mines of St. Barbe; but wisely leaving their situation undetermined, they were sought for in various positions without success by the Spaniards for thirty years after, and were generally forgotten, when Law revived the remembrance of them, and persuaded the people of France, that they were rediscovered in Louisiana; and in order to give authenticity to this assertion, miners were sent out to commence working, and troops to protect them.

The effervescence that this stratagem produced among the people of France of all classes, was truly astonishing, and the Mississipi became the great center of the views, the hopes, and the desires of seven-eights of the nation. A company, called the Western Company, was chartered, and before it had existed a year, the shares had doubled their original value. The chief persons of the kingdom solicited grants of land in the new *Eldorado*, and Law himself received a grant

of

of four square leagues, erected into a duchy, to which he sent 1,000 colonists and a company of dragoons. Other colonists pouring in from France, Switzerland, and Germany, were embarked, and the whole thrown ashore on the barren and burning sands of Biloxi; where thousands of them perished of hunger and chagrin, during four years that this port was retained. At length the few survivors abandoned this grave of their companions, and ascended the Mississipi, where they founded the city of New Orleans.

The people of France had by this time awoke from their golden dream; the mines of St. Barbe were obliged to be acknowledged non-existant, and with them vanished all the illusions they had created. The very name of the Mississipi was execrated, and it was only in the prisons and houses of debauch that fresh colonists could be found. Accordingly, several ship-loads of thieves and prostitutes were sent out, and the latter, according to a French author, became honest women and good mothers in the colony.

However this might be, the progress either in population or riches was very slow under the monopoly of the company, which lasted till 1730, when it relinquished its charter to the crown, and the commerce of the colony was declared free for ten years.

Under the royal government the colony, however, remained nearly stationary, the number of colonists in 1763 (when it was ceded to Spain) being only 7,000, and the exports to France in

indigo,

indigo, furs, hides, and tallow, and to the West Indies it smoked provisions, rice, Indian corn, &c. are worthy notice.

Spain did not immediately take possession of the colony, but first sent out Don Ulloa, in 1766, to examine the country, and this delay gave the colonists hopes of returning under the dominion of France. These hopes were, however, soon destroyed by an order from Spain, prohibiting the entrance of any but Spanish vessels into the ports of the colony. This prohibition, together with other acts of oppression, produced a rising of the colonists, who obliged Ulloa to quit the colony, at the same time that they sent deputies to France, to remonstrate against the cession. These representations were, however, of no avail, and Spain sent out Oreilly to assume the government, who having received a force of 3,000 men at Cuba, arrived at New Orleans in 1769, and immediately caused twelve of the principal colonists, who had been instrumental in sending away Ulloa, to be executed for disobedience to the orders of the Spanish government, although they had taken no engagement whatever to that nation.

Under the restrictive colonial regulations of Spain, Louisiana languished in a state approaching to misery, until 1778, when its commerce was laid open to all the subjects of Spain, and when the French West India Islands were permitted to export its timber and provisions in their own vessels. These meliorations had produced a certain de-

gree

gree of prosperity, when in 1803, France (having previously sold the province to the United States) obliged Spain to cede it to her, and after taking a nominal possession, put it into the hands of these States. At this cession, the population was 27,500 whites, and 17,197 negroes. The expenses of the colony amounted to 600,000 dollars per annum, while the receipts of the custom-house at New Orleans, the only revenue of the province, did not exceed 100,000.

UNITED STATES OF AMERICA.

THE territory of the United American States commences at the River St. Croix, in latitude 45°. The Atlantic maritime states are,

	Northern States.	*Middle States.*	*Southern States.*
New England.	Maine,	New York,	
	New Hampshire,	NewJersey,	Virginia,
	Massachusets,	Delaware,	North Carolina,
	Rhode Island,	Maryland,	South Carolina,
	Connecticut.		Georgia.

The Atlantic region of the United States presents two grand formations, the granitic, and the sandy; the first extends from the River St. Croix to Long Island, in which space the coast is composed of elevated granitic masses, with reefs connected with the continent.* From Long Island to the south, the coast is invariably low, nearly level with the water, and entirely composed of sea-sand, which extends a considerable way inland, and is covered with pine and other resinous trees.† The whole of this extent is also lined with sand-banks and low islands, between which and the continent

Formation.

* The peninsula of Cape Cod is the only exception to the granitic formation, being entirely composed of sea-sand, brought by the gulf stream.

† Hence these tracts are called the *pine barrens*; they are similar to the *landes* of France.

continent is an interior navigation for small craft, extending almost without intermission from the Chesapeak to the promontory of Florida, and doubling this point to the Mississipi, or even to Vera Cruz.

Rivers and Islands.

The next general feature in the Atlantic region, is the great number of its rivers, which have their sources in the ridges of mountains, that lay parallel to the coast at the distance of fifty to 250 miles. These rivers are distinguished from those of every other great region of the globe by the direction of their courses, for instead of following the vallies between the mountains, they cross the latter at right angles, finding their way to the sea through narrow chasms; after passing through which, and surmounting the bed of granite that serves as a base to this region, by falls more or less high, they cross in their course to the sea a flat alluvion plain, where they expand into sheets of water, giving to the coast, particularly towards the south, the aspect of a continued chain of lakes, within a chain of islands. On the coasts of Carolina, Georgia, and Florida, the islands have been evidently formed by an irruption of the sea, their ancient union to the continent being proved by the trunks of trees of the same species as those now met on the latter, found buried in the sand. When properly drained, these islands are found eminently fit for the production of indigo and cotton. Their eastern or exterior coasts are composed of a fine heavy sand, which resists the attacks

rocks of the sea better than the hardest rock. They abound in small tigers, deer, bears, wolves, foxes, hares, opossums, pole and wild cats; and are infested by rattlesnakes and other serpents. The salt lagoons and marshes within them are covered with saline plants, as salicor, barilla, &c. The channels into the lagoons are named Sounds, and are full of fish, chiefly mullet, whiting, flounders, rays, skip jacks, sea trout, bass, &c. Oysters, clams, crabs, and prawns, are equally abundant. Rivers and Islands.

The bays of the United States being separated from each other by narrow strips of land, by cutting through them an interior navigation may be formed, at inconsiderable expense, from Boston to Georgia. The first of these canals would be from the harbour of Boston to that of Rhode Island, a distance of twenty-six miles; the second from the Raritan River to the Delaware, twenty-eight miles; the third from the Delaware to the Chesapeak, twenty-two miles; and the fourth from the Chesapeak to Albemarle Sound, also twenty-two miles. Supposing this navigation to be completed, a vessel from Boston passing through the canal to Rhode Island Bay, and from thence through Long Island Sound and the harbour of New York, would reach Brunswick, on the Raritan, and from thence through the second canal to Trenton, on the Delaware, which she would descend to Newcastle; from hence the third canal would be cut to the Elk River, which falls into the Chesapeak. Descending this bay Inland Navigation.

Inland Navigation.

and ascending Elizabeth River, the vessel would pass through the fourth canal into Albemarle Sound, and by Pamtico, Core, and Bogue Sounds, she would arrive at Swainsborough, in North Carolina. From hence an inland navigation continues, but with a diminished depth, through Stumpy and Toomer Sounds; and by cutting two narrow necks, both not exceeding three miles, the vessel would arrive in Cape Fear River, and thence, by a short run along shore, she would reach the chain of lagoons, which line the Carolina, Gorgian, and Florida shores already noticed.

The navigation afforded, or which may be opened by the rivers of America, is not of less consequence. Five of the Atlantic rivers approach the St. Laurence and the lakes of Canada, viz. the Penobscot, the Kenebeck, the Connecticut, Hudson's River, and the Tioga branch of the Susquehannah. In the three first or New England Rivers, no other meliorations have been yet made than some short canals to avoid the falls of the Connecticut.

The Hudson affords a tide navigation for vessels of eighty tons to Albany, 160 miles above New York. Nine miles above Albany the river divides into two branches, that retaining the name of Hudson taking a direction to the north, and the Mohawk to the west; the first approaches Lake Champlain, and the second by a canal of one mile and a half to Wood's Creek communicated with Lake Oneida, and this lake with Lake Ontario by Oswego

Oswego River. From this river there is a communication by the Seneka into lakes Cayuga, Seneka, and Canadaque. Several large boats are employed in this navigation, and a schooner of sixty tons is in constant activity on lake Seneka.* Inland Navigation.

The Susquehannah is the largest river of the Atlantic region of the United States: it is navigable with the tide to its falls, near Havre de Grace. By the Tioga and other confluent rivers on the east it approaches lake Seneka, there being only a short *portage*, or land carriage, and the Seneka communicates nearly with lake Ontario by the river Genessee. By the Juniata, and other tributary rivers on the west, the Susquehannah approaches the Alleghany, one of the grand branches of the Ohio, which is itself a grand branch of the Mississipi.

It has been projected to unite the waters of the Atlantic with those of the Gulf of Mexico, by lock canals across the mountains, joining the Potomac with the Monongahela, the James with the Kanhaway, and the Santee with the Tenessee. The difficulties and consequent expenses of the complete execution of these projects are, however, very great.

The Potomac, which has its source in the Al-

 leghany

* A considerable commercial intercourse at present subsists between New York and New Orleans by another route. The merchandize ascend the Hudson and Mohawk to lake Oneida, from whence they descend by the river Oswego into lake Ontario; they then are conveyed by land carriage along the banks of the Niagara to lake Erie, and from this lake by another land carriage into the Alleghany and Ohio.

Inland Navigation.

leghany mountains, after a course of 400 miles, empties itself into the Chesapeak by a mouth of seven miles wide, and narrowing in the ascent to one mile at Washington. The depth, in like manner, diminishing from seven fathoms at its mouth to five fathoms at St. George, four at Alexandria, and three at Washington. The navigation to this latter city is unimpeded, and is open at all seasons, the river never freezing. A mile above Washington, one large rock starts up in the middle of the river, and the channels on each side are obstructed by sand-banks, and are only practicable by longboats, which can ascend to the *Little Falls*, six miles from Washington: here they enter into a canal two miles and a half long, and above the falls again enter the river, which they ascend to the *Grand Falls*, seven miles higher. The length of these falls is a mile and a quarter, and the perpendicular descent seventy-six feet; they are avoided by a canal, and above them the river is unimpeded by any obstruction to Cumberland, near 200 miles from Washington. Here the river is again crossed by falls, which it is intended to avoid by a canal, by which, with the exception of about fifty miles of land carriage, a navigation will be opened to the Gulf of Mexico by the rivers Cheat, Monongahela, Ohio, and Mississipi, and also, with the exception of a few carrying places, with lakes Erie, Huron, and Michigan.

The Mississipi (*Messa-chipi*, Father of Waters) is the second river of America, having its sources in three

lakes small lakes, in latitude 47°, and *debouching* in the Gulf of Mexico, in latitude 29°. Its whole course being 3,690 miles.

Inland navigation.

This great river empties itself by several mouths, forming a delta of drowned islands. Two of the channels are only fit for ships, and the deepest only for vessels of twelve to fifteen feet; so that, except in the spring, when the river is swollen,* vessels of 300 tons only can ascend to New Orleans. The depth in these channels also decreases annually, having had, it is said, depth for vessels of 500 tons fifty years ago.

Ten leagues from the sea the river deepens, and 100 leagues further it is thirty to forty fathoms, with a breadth of 600 fathoms. Above the confluence of the Red River the navigation becomes troublesome, from the islands and shoals formed by drift trees arrested in the stream, and called *snags*. Above the Red River the Mississippi receives the Arkansas and Missouri on the right, and the Ohio and Illinois on the left. The Missouri, which is in fact the upward continuation of the Mississippi, issues from the chain of *stony mountains* near the Grand Ocean, and, after a winding course of near 3,000 miles, takes the name of the Mississippi above Fort St. Louis, in 38½°.

The

* The rising of the river is caused by the melting of the snows in the north, and it is highest in April and May, when the stream runs eight or nine miles an hour in the narrow reaches, and three miles in the widest. The water is lowest in November and December, when the current is scarce perceptible. The extremes of level at New Orleans is fifteen or sixteen feet.

Inland Navigation.

The Ohio descends from the western side of the Alleghany ridge, and is formed of the Alleghany and Monongahela rivers, whose junction is at Pittsburg; and that of the Ohio with the Mississipi at Fort Jefferson, in 37°, after a tortuous course of near 2,000 miles, throughout which it is navigable, except in summer at the *rapids** of Louisville, caused by a bed of calcareous rocks, which formerly retained the waters in an immense lake, the bed of which is still easily to be traced. The Ohio receives many considerable rivers, as the Muskingham, the Scioto, South Miami, and Wabash on the right, and the Kanhaway, Kentuckey, Cumberland, and Tenessee on the left.

At Pittsburg on the Ohio, 2,180 miles from New Orleans, vessels of 250 to 300 tons are built, and sent in the spring loaded with flour to the ports of the United States in the Atlantic. The navigation *upwards* from New Orleans to Pittsburg is only practicable by boats, on account of the current. They use sails, oars, poles, and are also *tracked*,† where the banks admit of it. A loaded boat takes forty-five to fifty days in ascending from New Orleans to Pittsburg, and twenty-eight days in returning; but a light canoe may accomplish the passage up in twenty to twenty-five days, and that down in fifteen to twenty.

The descending navigation from Pittsburg to New

* Small falls, which can at times be ascended by boats.

† Drawn by men.

New Orleans is also performed by flat boats, or rather chests, which being unable to return against the stream, are broken up at New Orleans, and their conductors embark for the Atlantic ports, from whence they return by land to Pittsburg. Inland Navigation.

It would be easy to connect the waters of the Ohio with those of lake Erie, by joining the Cayuga, which falls into the lake, with Muskingham, a tributary of the Ohio, these rivers approaching each other within six miles; also by the union of the Sandusky and Scioto, the former *debouching* in the lake, and the latter in the Ohio. The Northern Miami, which also empties itself into the lake, may be easily united to the Southern Miami, or to the Wabash, both confluents of the Ohio.

It is also easily possible to form a navigation from the Illinois to lake Michigan, by a short canal from the former river to the Chikaoo, which falls into the lake, or by uniting the Fox river, which also empties itself into the lake, with the Ouisconsing, whose confluence with the Mississipi is in latitude 40°. A canal of two miles would establish this communication. But the simplest communication between the lakes of Canada and Gulf of Mexico is by the small lake Chataughgue, on the S.E. of the lake Erie, and only eight miles distant, from which issues the Conowango, one of the branches of the Alleghany, navigable in all its course.

The other principal navigable communications that may be effected are, the union of the Tenessee with the Tombigbee, one of the branches of the Mobile;

Inland Navigation.

Mobile; and this latter river with the Altamaha, which would obviate the tedious and difficult navigation round the peninsula of Florida.

The coasts of the New England States are in general low, and in many places sandy and level, but the ridges of inland hills are seen from the sea.

District of Maine.

The district of MAINE, included in the government of Massachusets, is separated from the province of New Brunswick by the river St. Croix, and extends on the south to Piscataqua river. This coast is remarkable for the great quantity of rock small that covers the shore, and for the rise of tide, which in the north-eastern bays is thirty feet.

The principal bays of this district are, Passamaquoddy, already noticed; Machias, on which is a thriving town of the same name; Penobscot, twenty miles wide, with many islands, the largest of which, named Long Island, is fifteen miles long and two to three broad, with a town named Hamborough, of 300 inhabitants. On the east shore of the bay are the towns of Penobscot and Castine; and on the river Penobscot, which falls into the bay, at the head of the tide water, is Bangor, a thriving town.

The Sheepscot river forms at its mouth the good harbour of Wiscasset, and is navigable twenty miles. Sagadahock Bay receives the considerable river Kennebeck, navigable for vessels of 150 tons forty miles. At the head of the tide water is Hallowell, a thriving town.

Casco Bay is eight leagues wide and four deep, forming an excellent port for large vessels, and

interspersed

interspersed with cultivated islands. PORTLAND, the chief town of the district, is on a point of land in the bay, with a fine port, at whose entrance is a light-house. The population, in 1805, was 5,000. Yarmouth is a thriving town on this bay. District of Maine.

Saco River is navigable for ships to its falls, six miles from the sea. Biddeford, on this river, exports a great quantity of lumber. York Town had (1779) 2,000 inhabitants: it is situated on York River, navigable for vessels of 250 tons six miles.

The state of New Hampshire has but six leagues of coast, on which there are several coves for fishing-boats; but the only harbour for ships is that of Piscataqua, at the entrance of the river of the same name, whose current is so rapid that it never freezes. In the mouth of the harbour is Newens, the Island, two leagues in circuit, with a light-house. PORTSMOUTH, the chief town of the state, is on the south shore, two miles from its entrance. In 1805 it had 7,000 inhabitants; it is defended by a citadel. In 1790 Piscataqua harbour had thirty-three vessels above 100 tons and fifty under 100. New Hampshire.

The state of MASSACHUSETS is one of the most commercial and flourishing of the Union: its principal ports are, Newberry, at the mouth of Merrymak River, which has a great trade with the West Indies, in 1790 employing 12,000 tons of shipping. Government frigates are built here. Plum Island lies along the coast, from Merrymak River to Ipswich, being separated from the main by a narrow Massachusets.

Massachusets. row channel, fordable in some places at low water. The island is composed of sand-hills, producing the bushes that bear the fruit called beach plum. On the north end are two light-houses, to point out Newberry harbour. Ipswich, on a broad river, is a poor place. Salem has 10,000 inhabitants, and a large trade to the West Indies; it is also a great ship-building place. It is between two rivers, forming two ports, named the winter and summer harbours.

Boston, the chief town of the state, and the fourth of the United States, is built on a peninsula in Massachusets Bay. Its road, called Nantasket, is sheltered by ten or twelve islands, and many rocks above water, leaving only one channel for ships, 120 yards wide. The road can hold 600 ships, and is protected by a citadel named Fort William, on an island. The harbour is lined by a magnificent quay and magazines, into which ships discharge their cargoes from their holds by cranes. The town, built at the mouth of the river Charles, is composed of brick and wooden painted houses, and in 1810 contained 33,000 inhabitants. The river is only navigable for boats seven miles.

Plymouth is a town of three or 4,000 inhabitants, with a large but shallow port.

The peninsula of Cape Cod is the southern limit of Massachusets Bay (of which Cape Anne is the north point). The peninsula is in the shape of a bent arm, the concavity on the north. It is entirely composed of sand hills, which are constantly shifting, and which naturally produce only dwarf,

dwarf, pitch, pine and whirtle-berry bushes; but wheat and rye are cultivated in small quantities. On the peninsula are many clear fresh-water ponds, abounding in fish. The population is said to be near 20,000, all fishermen. Though this tract of land seems to have been originally formed by the accumulation of sea sand, at present the sea evidently wears it away, and of an island which existed covered with wood a century ago, there only remains a large rock, which has settled down as the earth has been washed away. The isthmus of the peninsula, at the place called Province Town, is only three miles wide, between Barnstaple Bay on the north and Province Town harbour on the south. *Massachusets.*

Nantucket Island, south of Cape Cod, is low and sandy, without a single tree, though it was formerly well wooded. Its only town, named Shelburne, has 5,000 inhabitants, who, as well as the whole of the islanders, subsist by fishing, and particularly by the whale fishery to the Grand Ocean. A shoal runs out from the island to sea fifteen leagues.

Martha's Vineyard, ten leagues west of Nantucket, is seven leagues long and one broad. On the north it is hilly and rocky; its harbour is formed by the little fertile island Chabaquidick. Edgerton, the chief place, is on this harbour. The whole population is about 4,000, who subsist by agriculture and raising cattle.

RHODE ISLAND State comprehends a small extent of the main land, and several islands in the large *Rhode Island.*

Rhode Island. large Bay of Narraganset. This bay receives several rivers, of which the most considerable are the Providence and Taunton; the first is navigable for ships of 900 tons to Providence, thirty miles from the bay; the rise of tide in these rivers is but three feet. The town of PROVIDENCE is on both sides of the river; in 1805, the population was 8,000. In 1791, it had 129 merchants vessels of 11,492 tons. Bristol and Tiverton, on the Taunton, are flourishing little towns; and on the shores of the bay are Little Compton, Warren, Warwick, East and West Greenwich, New Kingston, and other rising towns of 1,000 to 3,000 inhabitants.

The principal islands of the state are RHODE ISLAND, thirteen miles long and four broad. Before the revolution it was called the *Eden of America*, but during the war, all its ornamental woods and its vast orchards were destroyed. At present its chief riches are in the great herds of sheep, cattle, and horses, it feeds. Newport, the chief town of the island, contained (1805) 7,000 inhabitants, and is beautifully situated on a capacious and secure harbour, which never freezes. Packets sail from this port to New York and other places of the United States.

Canonicut Island, west of Rhode Island, is six miles long and one broad; on its south end is a light-house. Jamestown is the chief place. Block Island, *Manisses* of the Indians, is seven leagues S.W. of Newport. New Shoreham is its only

only town, and is inhabited by cod fishers, the Bay of Narraganset abounding in these fish.

The State of CONNECTICUT has ninety miles of sea coast between the Pankatuk River on the north, and Byrom River on the south. Several considerable rivers empty themselves on this coast, *viz.* The Thames, which is navigable fourteen miles to the town of Norwich, situated at the fork, where the river divides into two branches. Connecticut River is of considerable size, but its mouth is crossed by a sand bar, with ten feet low water, which depth continues to Middleton, thirty-six miles; above this town the navigation is impeded by shoals, with but six feet, and the rise of tide here is only eight inches. Small vessels ascend to Hartford, fifty miles from the bar; and with the exception of three carrying places, in all fifteen miles, the river is navigated by flat boats 200 miles. Connecticut.

The river Housatonic is navigable for small vessels to Derby, twelve miles above the bar of shells at its mouth. Above Derby the whole volume of the river precipitates itself down a cataract sixty feet perpendicular, and 150 feet wide.

Connecticut has a great number of little port towns, the whole coast presenting a quick succession of harbours. The most frequented are the following: New London, on the west shore of the Thames, near its mouth, containing (1791) 5,000 inhabitants; its harbour is the best of the state, being four miles long and one broad, with five

Connecticut. five to six fathoms depth; a light-house is placed at its entrance, and it is defended by forts on each side of the river. Norwich, fourteen miles above New London, is a trading and manufacturing town of (1794) 3,000 inhabitants.

Haddam, Middleton, and Hartford, are the chief towns of Connecticut River; the two latter have about 300 houses each (1794); in 1805, Hartford had 6,000 inhabitants.

Newhaven is situated at the head of a harbour four miles long, with an entrance of half a mile in breadth; the depth is only fifteen feet low water and sixteen at high. The town in 1805 had 5,000 inhabitants. Its trade is considerable with the West India Islands. Straford, at the mouth of the Housatonic, and Fairfield on Ship Harbour, are the towns next in consideration.

New York. The State of NEW YORK extends from the River Byrom, on the north, to the entrance of the Hudson, on the south, only a few miles; but to this state also belongs Long Island, separated from the main by Long Island Sound, from three to twenty-five miles broad and 140 miles long, affording a safe inland navigation along the coast of Connecticut. Near the west end of the sound is the strait between the island and main, called Hell-gate, from its whirlpools, caused by the tides rushing through the narrow winding channel, over a rocky bottom; the depth is, however, sufficient for ships.

The navigation of the Hudson, one of the most useful and finest rivers of the United States, has been

been already noticed. The Bay of New York is entered between the west end of Long Island and the east end of Staten Island, the channel being two miles wide, and crossed by a bar with but twenty-two feet depth at low water, and twenty-four feet at high. The distance from the Narrows to New York is ten miles, and from Sandy Hook, the extremity of a peninsula* on the Jersey shore, on which is a light-house, twenty-five miles. New York.

Long Island is 140 miles long and twelve broad. The south coast is low and flat, with sandy plains and salt meadows. This side is lined by a bank of sand and stone, eighty roods broad, forming a long lagoon within it two to three miles wide, which was formerly a fresh water lake, but at present there are many breaches in the bank, admitting vessels of sixty tons into the lagoon; forty or fifty of which are sometimes seen here loading oysters, clams, and fish, particularly bass, which are so abundant, that thirty waggon loads have been caught in one draught.

The north side of the island, opposite the main, is hilly, with a clay soil. In the middle of the island is a barren heath, overgrown with shrubs, oaks, and pines, and abounding with deer and grouse, for whose preservation laws have been enacted. Near the east end of the island, in a sandy beach

* In 1777, the sea broke through the isthmus of Sandy Hook peninsula, and made it an island.

New York. half a mile from the sea, the whole skeleton of a whale was dug up some years since.

The island is well watered by numerous rivulets; and nearly in the centre is a lake a mile long, whose waters rise for several years, gradually, to a certain height, and then fall quickly to their lowest level: this phenomenon has not been accounted for.

The inhabitants of Long Island, about 40,000, are disseminated in many small towns and villages. Their chief industrial pursuits are the rearing of cattle, and the whale fishery in the neighbouring seas, the produce of which, upwards of 1,000 barrels of oil, and their cattle and provisions, are exported to the West Indies.

Staten Island, also in the state of New York, is eighteen miles long and six broad; in general it is hilly and rugged, with about 4,000 inhabitants.

NEW YORK, the second city of the United States in population and commerce, is situated on the south point of a tongue of land, insulated by an artificial cut, and at the confluence of the Hudson and East Rivers, the former washing it on the west and the latter on the east. Both rivers have depth for vessels of 600 tons to lay always afloat; but the East River is most frequented, from its freezing later than the Hudson. The quarter of the town on this last river is the best built, the houses being of stone or brick, the streets wide, with foot-ways, and regularly lighted. The quarter next the East River is chiefly

chiefly inhabited by merchants and shopkeepers, and is dirty and crowded. There are many canals at which vessels lay to load and unload, but which are also thought to be a cause of the great unhealthiness of the town. The population of New York has trebled in the short space of twenty years, in 1790 the number of souls being but 32,000; in 1796, 40,000; in 1806, 60,000; and in 1810, 96,000. The public buildings are twenty-one places of worship of all sects; a custom-house; court of justice, &c. The commerce of New York is principally to the West India islands, whither it sends a great quantity of provisions, and receives in return colonial produce. The shipping belonging to the state in 1791 amounted to 47,000 tons, besides about 40,000 foreign tons employed in its trade. A great number of merchant vessels are built here. *New York.*

The town of Hudson is 130 miles above New York, on a beautiful and elevated situation; and thirty miles farther is Albany, a flourishing town of 9,000 inhabitants.

New Jersey State is bounded on the east by the River Hudson and the Ocean; and on the south by the Delaware. From the River Manasquand, in latitude 40°, to Cape May, the coast is lined by sandy banks, generally dry, at the distance of four or five miles from the shore, within which small vessels navigate. The whole of this coast appears to be a deposit of the sea, the soil being a light sand; and at the distance of thirty *New Jersey.*

New Jersey. miles from the sea, in digging to the depth of fifty feet through the same soil, a salt marsh is found.

The rivers are numerous, but not large. The Hackinsak and Passaik fall into Newark Bay; the first is navigable fifteen miles, the second ten miles, to where it forms a cataract of its whole volume, seventy feet perpendicular. The Rariton River falls into the bay south of Staten Island, forming at its mouth the fine harbour of Amboy. It is navigable sixteen miles; and it is in contemplation to unite it by intermediate rivers and canals to the Delaware. Milicus River is navigable twenty miles for vessels of sixty tons. Many of the other rivers and creeks that fall into the sea, flowing through a flat country, are navigable to their sources by small craft; such are Great and Little Egg harbour Rivers, Matticur, Shark, &c.

The principal port towns of New Jersey are, NEWARK, on the Passaik, seven miles from New York, a handsome little town of wooden houses and 2,000 inhabitants (1806). Elizabeth Town, pleasantly situated on a bay, fifteen miles from New York, contains (1794) 150 houses. Perth Amboy, on a neck of land between Rariton River and Newark Bay, has one of the best harbours of the United States, having capacity for 500 ships: the town consists of only sixty houses. New Brunswick, five leagues above Amboy, is built on the bank of the river at the foot of a hill: it had, in 1806, 4,000 inhabitants. Some small vessels belong to it.

Burlington

Burlington and Trenton, on the Delaware, are two of the largest towns of New Jersey, of which state Trenton is the chief town. The vicinity of Philadelphia is injurious to their trade. New Jersey.

The DELAWARE Bay is entered between Cape May, on the north, and Hinlopen, or James, on the south, distant from each other six leagues. Within them the bay widens to ten leagues, and again contracts, until at Bombay Hook, seven leagues from the capes, it is two leagues wide, and here the River Delaware is considered as commencing. At Reedy Island, twenty miles above the Hook, the breadth of the river is three miles, at Philadelphia one mile, and at Trenton fifty to sixty fathoms. In general the shores of the bay are low, and covered with wood, with some marshes.

PHILADELPHIA, the first city of the United States, with respect to population and commerce, is situated on the left bank of the Delaware, forty leagues from the sea. Vessels of 500 tons ascend to it, and lay alongside the numerous jetties of wood run out into the river. The streets are all drawn from a common centre, and are from 100 to 150 feet wide. The houses, mostly of brick, are three stories high, with a garden to each. The population has increased from 42,000 in 1790, to 111,000 in 1810.

The Schuylkil River falls into the Delaware, six miles below Philadelphia; its course is 120 miles, of which it is navigable ninety, to the town of Reading.

Delaware. The State of DELAWARE extends on the west shore of the bay of the same name, and also on the Atlantic from Cape Hinlopen, to the latitude 38° 30′.

In ascending the Delaware the towns met in succession are, Lewes, a few miles above Cape Hinlopen, on a creek which has only water for small craft. It has 150 houses.

DOVER, the chief town of the state, is also on a creek communicating with the Delaware. In 1794 it contained 100 houses, chiefly of brick. Newcastle, on the Delaware, thirty-five miles below Philadelphia, was founded by the Swedes in 1672, by the name of *New Stockholm*, which was changed by the Dutch to *New Amsterdam*. It contains 3,000 inhabitants. Wilmington, the largest town of the state, having 6,000 inhabitants, (1806) is on the Delaware ten miles above Newcastle. There is no town on the Atlantic coast of this state.

Maryland. The State of MARYLAND extends on the Atlantic coast of the peninsula of the Chesapeak to its southern extremity at Cape Charles, and rounding this cape along the western shore of the peninsula to the junction of the Susquehannah, and from this river along the east shore of the Chesapeak to the Potomac.

The Atlantic coast of the peninsula is lined by sandy islands, forming inlets, or sounds.

The Chesapeak is a vast estuary, 260 miles in length, and eighteen miles wide; it is entered between Cape Charles on the north, and Cape Henry

Henry on the south, twelve miles from each other. Maryland.
In the entrance is a sand bank, leaving only a sloop channel on the side of Cape Charles, but on the side of Cape Henry the passage is fit for the largest ships. The bay has many islands, abounds in crabs and fish, and is celebrated for a species of wild ducks, called *canvas-backs*.

Ascending the bay along the east shore, many small towns are met with, but none of any note. On the west shore the principal places are ANNAPOLIS, the capital of the state at the mouth of the River Severn. It is a place of little consideration, having but (1805) 2,500 inhabitants.

BALTIMORE, the fifth commercial town of the United States, and the fourth in size. Its population in 1810, 46,000. It is situated round a reach of the Patapsco River, in which the depth is but five or six feet. Large vessels, therefore, are obliged to lay at Fells Point, a kind of suburb, separated from the city by a creek, where are quays, at which vessels of 600 tons lay loaded. The streets are at right angles, of good width, and paved. The houses chiefly of brick.

The trade of Maryland centers in Baltimore, from whence are exported 30,000 hogsheads of tobacco, besides large quantities of corn, provisions, and lumber.

The State of Virginia extends from the Virginia.
Carrituck inlet, on the Atlantic, round Cape Charles into the Chesapeak, and along its west shore into the Potomac River, which separates it from Maryland. On the sea coast the land is

Virginia. not more than twelve feet above the level of the sea, and intersected by numerous salt creeks and rivers, terminating in swamps.

The whole territory of Virginia to the foot of the mountains, 150 to 200 miles from the sea, is evidently of marine alluvion formation, and appears to have been formed at different periods. Near York Town the banks of the river first present a stratum of sand, clay, and small shells, five feet thick, over which is a horizontal layer, of small white shells, cockles, clams, &c. an inch or two thick; then a stratum similar to the first, eighteen inches; third and fourth, a layer of shells and another of earth; fifth, a layer of white shells and sand, of three feet; sixth, a body of oyster shells, six feet thick, covered with earth to the surface, which is forty feet above the sea.

The same appearances are observed on James's River, 100 miles from the sea: here the banks are filled with sharks' teeth, petrified bones of fish, and of land animals, &c. Even among the Alleghany mountains there is a tract of 40,000 acres surrounded by hills, covered with oyster and cockle shells to a considerable depth.

On the Chesapeak shore of the state many considerable rivers empty themselves, *viz.* James's, formed of many lesser rivers, empties itself just within Cape Henry. Hampton Road, at its mouth, is a good anchorage in summer, and above this the river is navigable for frigates to James Town; above which is a bar, with but fifteen feet. Vessels of 250 tons go up to Warwick;

wick, those of 125 to a mile below Richmond. At this last town the navigation is stopped by falls which descend eighty feet in a space of six miles: above these the navigation is resumed with canoes and *batteaux*, to within ten miles of the Blue Mountains. The confluent rivers of James's are also navigable to a considerable distance. The Elizabeth, the lowest of the tributary rivers, has eighteen feet to Norfolk; its entrance is covered by Craney Island. Nansemond River is navigable for vessels of 100 tons to Suffolk, and for those of twenty-five tons to Milners. Pagan Creek has eight or ten feet to Smithfield. Chickahominy is crossed by a bar at its mouth with twelve feet high water, above the bar it is navigable twelve miles for vessels of ten feet, and thirty-two miles for those of six tons. Virginia.

York River, at York Town, forms the best harbour of this state for the largest vessels; the depth twenty-five miles above York, is four fathoms; and at the confluence of the Pamunkey and Maltapony (whose united streams form York River) the depth is three fathoms. Both these rivers are navigable by small craft to the foot of the Blue Ridge.

The Rappahannock has four fathoms to Hobbs's Hole and two fathoms to Frederick's Bay, 110 miles farther.

The navigation of the Potomac has been already noticed.

The principal towns of Virginia accessible to navigation are, NORFOLK, the most commercial town of the state, at the mouth of Elizabeth River.

It

It has 7,000 inhabitants (1805): its exports are chiefly tobacco, wheat, and Indian corn, beef and pork, pitch, tar, masts, planks, staves and lumber, skins of wild animals, &c.

Hampton, at the mouth of James's River, has only thirty houses. RICHMOND, on this river, at the foot of the falls, is the capital of the state, and has 6,000 inhabitants (1805). York, at the mouth of the river of the same name, has 1,000 inhabitants. Gloster, on the opposite side of the river, has not above a dozen houses.

Urbanna and Fredericksburgh, on the Rappahannock, have each about 2,000 inhabitants.

The district of COLUMBIA consists of a portion of the states of Virginia and Maryland, on both sides of the Potomac, included within a *rayon* of ten miles round the city of WASHINGTON. This embryo capital of the Anglo-American empire, is situated on a point of land at the confluence of the eastern and western branches of the Potomac, 140 miles from the Chesapeak. The ground marked out for the city has fourteen miles of circuit, the streets are all to run north and south and east and west; their breadths ninety to 110 feet. The public edifices, destroyed by the English in 1814, in retaliation for the excesses of the American troops, consisted of the capitol, on an elevation, in the centre of the city; the palace of the president, surrounded by a garden of 100 acres, and a large public hotel. The filling of the immense *blanks* in this city, however, goes on very slowly. In 1796 the population was 5,000; and though in

1800

1800 it became the seat of government, in 1806, it had not increased. Virginia.

Alexandria, ten miles below Washington, on the right bank of the Potomac, is more populous than the capital, having, in 1810, 8,500 inhabitants. George Town is also in the territory of Columbia, three miles above Washington.

North Carolina extends from Currituck inlet, in about 36° 30′ to 33° 50′. The whole of this state, sixty miles from the sea, is a perfect level in which marine productions are found at the depth of twenty feet from the surface. The coast is lined by islands and sand banks, forming sounds, or lagoons, within them, but generally too shallow to admit vessels of any burden, Brunswick being the only harbour of the state capable of receiving those of sixteen feet. In prolonging the coast from north to south the points worthy of mention are Albemarle Sound, sixty miles long and eight to twelve broad; Pamlico Sound, a great lagoon 100 miles long and ten to twenty broad, the bank that separates it from the sea is a mile wide, and composed of sea sand covered with small trees and bushes; there are several breaks in it, of which that named Ocrecok inlet is the only one that admits vessels of burden, and this is crossed by a shifting hard sand bar with but fourteen feet above water and the rise of tide is but eighteen inches, so that pilots are necessary. Between Albemarle and Pamlico Sounds, is a large extent named the *Dismal* Swamp, latterly converting into rich rice plantations.

Cape

North Carolina.

Cape Hatteras, Cape Look-out, and Cape Fear, are three prominent points on this coast. Cape Hatteras is the salient point of the sand-bank that encloses Pamlico Sound; off the cape is a cluster of shoals, at the distance of five leagues, with channels within them. In bad weather, the combined forces of the gulf stream and the winds, produce the most tremendous breakers on these shoals, but in fair weather they may be sailed over by vessels of eight or nine feet. Their seaward or exterior edge, goes off perpendicularly from ten fathoms to no soundings, and by a comparison of the old and modern charts they seem to have greatly decreased. A little north of Cape Hatteras with the wind off shore, a boat may land and procure fresh water by digging a foot or two deep in the sand of the beach.

Cape Look-out is the south extremity of a sand bank enclosing Core Sound: near it was formerly a good harbour, but which has been entirely filled up with sand since 1777.

Cape Fear is the S.E. point of an island; on it is a light-house, and a dangerous shoal, called the Frying-pan, runs off to the south six miles.

This state has a great many rivers but they are all barred, and seldom admit vessels of above eleven feet: they are also subject to inundations after rains. The islands that line the shore and the sounds within, prevent the tides from being perceptible in the mouths of the rivers. The Roanoke, which falls into Albemarle Sound, is only navigable for shallops sixty miles, where it is obstructed by

by falls. The Pamlico or Tar, is navigable for vessels of nine feet forty miles to the town of Washington, and fifty miles farther for flat boats. The Neus also falls into Pamlico Sound, and is navigable for small ships twelve miles above Newbern, for flat boats fifty miles, and for small boats 200 miles. Cape Fear or Clarendon River, empties itself within Cape Fear Island; it is navigable for sea vessels to Wilmington, and for boats to Fayetteville, ninety miles further, affording the best navigation in North Carolina. North Carolina.

The chief towns of the state are Edenton on the north shore of Albemarle Sound, containing (1794) 150 wood houses. Washington on the Pamlico, ninety miles from the sea, exports tobacco, beef, pork, corn, wood, pitch, tar, &c. by about 130 annual vessels. Newbern, at the confluence of the Trent and Neus, is the largest town of the state, in 1794 having 400 houses all of wood.

Wilmington on the Clarendon, thirty miles from the sea, has 2,000 inhabitants (1800): it has considerable trade, but is unhealthy from being surrounded by sand hills and swamps.

South Carolina extends on the south to the River Savannah which separates it from Georgia. The whole state, eighty miles from the sea, is level and almost without a stone, the ascent in this distance being 190 feet. Here commences a country composed of little sand hills, like the waves of the sea arrested in their motion. Its coast is South Carolina.

lined

South Carolina. lined by a chain of sandy islands, with a navigation within them for coasters; but it has only two harbours for vessels of any size, *viz.* Charlestown and Port Royal, and the latter having no river near it is of little utility to commerce.

The state has four large rivers and many lesser ones, but all generally crossed by bars. The Pedee falls into Winya Bay, whose bar admits only vessels of eleven feet. The Santee the largest river of the state empties itself farther south.

The chief towns are Georgetown, at the junction of the Pedee and several other rivers twelve miles above Winya Bay.

CHARLESTOWN, the sixth commercial city of the United States, is situated on a point of land at the confluence of the Ashley and Cooper rivers, which fall into a sound or inlet within Sullivan's Island, the entrance of which is crossed by a bar that admits only vessels of 400 tons, who can lay alongside the wooden jetties, run out from the town. Ashley's River is navigable for vessels of 250 tons twenty miles above the town and for boats forty, Cooper's is navigable a less distance for ships, but a greater for boats.

Charlestown is well built, with wide and straight streets. In 1803 the population was 20,000, of whom 9,000 free people of colour and slaves; in 1810, the population had increased to 25,000, although the ravages of the yellow fever have carried off great numbers annually for some years past. Sullivan's Island, which enjoys the benefit

of

of the sea breezes, is not subject to this malady, nor does it extend twenty miles inland.

The foreign and coasting trade of Charlestown are very considerable, it being the chief depot of the produce of this state. The exports are rice, indigo, tobacco, furs, beef, pork, cotton, pitch, tar, timber and lumber, naval stores, ginseng, &c.

Georgia.

The State of GEORGIA extends from the Savannah to the river St. Mary: the whole of the coast to the distance of fifty miles from the sea, resembles South Carolina, having neither hill nor stone. The coast is also, like those of the provinces farther north, lined with islands, covered with trees, pines, oak, hickery, live oak, and red cedar. The inlets of these islands form safe and capacious harbours, communicating with each other: the principal are Wassaw Sound, Ossabaw Sound, St. Catherine's Sound, Sapello, Altamaha or Little St. Simon, Jekyl, Cumberland, and Amelia.

The chief rivers are the Savannah, crossed by a bar, with sixteen feet at half tide. On Tybee Island, which forms the south shore of the entrance, is a light-house, eighty feet high.

The Altamaha, or St. George, is the largest river of the state, and falls into the Atlantic by several mouths; the northernmost between Sapelo and Wolf Island, and the south branch, which is the largest and deepest, is through St. Simon's Sound.

To The

Georgia. The chief towns of Georgia are SAVANNAH, the former capital,* on a sandy bluff on the south bank of the river of the same name, seventeen miles from its mouth; it has about 7,000 inhabitants.

Sunbury, on the river Medway, which falls into St. Catherine's Sound, is a pleasant town, accessible to vessels of twelve feet.

Brunswick, at the mouth of Turtle River, in St. Simon's Sound, has a safe harbour, the bar having depth for the largest ships; the town is in its infancy.

Frederica, on the west shore of St. Simon's Island, has a safe harbour for the largest vessels; the town consists of but a few houses. It had a regular fortress of brick, built by the English, but now in ruins.

The commerce of the British American colonies, previous to their independence, was confined to the mother country, from whence they were supplied with all the manufactured objects of domestic consumption, in exchange for their agricultural produce, and the timber of their forests. In 1774, this commerce did not exceed in exports and imports fourteen millions of American dollars; but from the epoch of independence, it has had almost a constantly progressive increase, in 1784 being thirty millions, and in 1794 sixty-seven millions. Since this period, the Americans,

* The present capital is Augusta, on the same river, 100 miles from the sea.

Americans, by their neutrality, raised their commerce to an enormous height, as under their flag only could the whole continent of Europe be supplied with colonial produce, hence in 1804, the foreign trade of America was 143 millions of dollars, and in 1806, 211 millions. From this time the decrees of Buonaparte, and the counter decrees of Great Britain, kept the American trade in a state of vacillation, until calculating upon the accomplishment of the universal monarchy aimed at by the Corsican usurper, the President of the United States declared war against England. Commerce.

The United States being yet in the infancy of manufactures, the only objects of external commerce afforded by their territory, are derived from the soil and the fisheries; the northern states offering corn, timber, potash, salt provisions, and salt fish; the middle states, corn, timber, tobacco, and provisions; and the southern states, indigo, rice, cotton, tar, pitch, and turpentine, and provisions to the West Indies.

The imports of the United States are fine linens and woollens, silks, hardware, glass and earthenware, wines, brandy, tea, cochineal, and other colonial produce. Of these objects, about one half are re-exported with considerable profit. The balance of trade with all the nations of Europe, except England, is generally in favour of America, but this collective favourable balance is almost entirely absorbed by the counterbalance with England, which exceeds twenty millions of dollars annually,

Commerce. annually, and which is paid by Bills of Exchange chiefly from Holland, France, and Spain, in which countries the Americans have a large favourable balance, not only by the excess of exports to these countries, but also by the profits of the carrying trade estimated at ten millions of dollars. On the whole, according to M. de Beaujour, the net profits of the foreign and external commerce, and navigation of the United States is twenty-five millions of dollars.

On an average of ten years, 1796—1805, the commerce of the United States gives of exports sixty-eight millions, and of imports seventy-five millions. Of the former, wheat, flower, salt beef and pork, and other provisions, for seventeen millions; timber, potash, and other produce of the woods, six millions; produce of the fisheries, three millions; and manufactured objects two millions; the remaining twenty-nine millions consisted of imports re-exported.

Of the sixty-eight millions of exports, twenty-four millions were to British dominions,* twelve to France, nine to Holland, seven to Spain, four to Russia and Germany, three to Italy, two to Portugal, one to India and China, and six to various places.

Of the seventy-five millions of imports, England and

* *i. e.* To the British Islands, sixteen millions; to British North America, one million; to the British West Indies, six millions and a half; and to the East Indies, half a million.

and her dominions gave thirty-six millions,* France eight, Russia and Germany seven, Holland six, Spain five, Italy two, Portugal one, India and China six, and all other parts of the world four. Commerce.

The imports from England are woollens, cottons, hardware, and earthenware; from France, wines, brandies, silks, and other fashionable clothing; from Holland, Russia, and Germany, cordage, linens, glass, and gin; from Portugal, Spain, and Italy, wines, olive oil, and fruits; from India, piece goods, pepper, and spices; from China, teas and nankeens; and from the West India colonies, rum, sugar, and coffee.

The Americans excel in ship building, and new ships form a considerable branch of their export trade. The vessels of Baltimore, New York, and Philadelphia, are most esteemed as fast sailers; but those of the southern states, built of the timber of the Carolinas, are the most durable. The annual average tonnage built throughout the United States is 100,000 tons.

The foreign trade of the United States, when at its height, employed near one million and a half tons of shipping, and 100,000 seamen. The river and coasting trade, less subject to variation, employs 300,000 tons, and 20,000 seamen; and the fisheries 60 to 80,000 tons, and 8 to 9,000 fishermen. The produce of the salt and fresh water fisheries is valued at seven to eight millions of dollars.

* *i. e.* From the British Islands, twenty-seven millions; from British North America, half a million; from the British West Indies, four millions and a half; and from the East Indies, four millions.

Commerce.

Amongst the branches of the fishery is that of the whale, principally confined to the New England States, where it is of ancient date, having been carried on in the Gulfs of Florida and St. Laurence before 1763. At the present time the vessels of these states sail round Cape Horn, and take the whale in the sea of New Holland. They also visit the north-west coast of America for furs, which they dispose of at Canton.

The only commercial treaties between America and foreign nations are with France and England; that with the former was concluded in 1787. Its principal clauses relate to the importation of whale oil and bone, and the produce of the fisheries and soil of America into France on more favourable terms than from other nations. In their commercial relations with England, America complains of the restrictions proceeding from the navigation act; but in this respect she is upon the same footing as other nations, and has, consequently, no real ground for complaint. The great subject of discontent on the side of America has been the searching of her ships, and the impressment of seamen from them, under what she styles, the *pretence* of their being British subjects. This subject, however, which was one of the ostensible causes of the war declared by America against England, has been left exactly in the same state, not even being mentioned in the treaty of peace just concluded.

GENERAL STATEMENTS OF AMERICAN COMMERCE.

TABLE I.—*Exports and Imports.*

Years.	EXPORTS. Home Produce. *Dollars.*	Foreign Merchandize. *Dollars.*	Total. *Dollars.*	IMPORTS. *Dollars.*	Tonnage.	Seamen.
1774	6,100,000	—	6,100,000	7,000,000	198,000	15,000
1784	9,000,000	1,150,000	10,150,000	11,000,000	250,000	18,000
1790	14,200,000	1,800,000	16,000,000	17,500,000	486,000	25,000
1795	18,064,050	29,791,506	47,855,556	48,000,000	747,000	45,000
1799	33,142,187	45,123,335	78,265,522	79,500,000	920,000	63,500
1801	47,377,792	46,642,723	93,020,515	88,900,000	947,576	63,800
1805	42,387,002	53,179,019	95,566,021	96,000,000	1,140,368	70,000
1806	43,940,578	19,822,065	63,762,643			
1810	—	—	67,000,000			
1811	45,294,043	16,022,790	61,316,833			

Commerce.

TABLE II.—*Average Exports of three Years, 1802-3-4.*

Home Produce.	Millions.	To what Places exported.	Millions.
Vegetable food	13	To England and her colonies	20
Animal food	4	France	5
Fish	3	Spain	4
Cotton	7	Portugal	2
Tobacco	6	Holland	3
Timber, pearl-ashes, and naval stores	4½	Hanse Towns	1
Sundries	2	Denmark	1
	39½	Sweden, Prussia, Russia	1½
		All other parts	2
			39½

To Europe	23 millions.
West-Indies and foreign America	15
To Asia, &c.	1½
	39½

Foreign Merchandize.	Millions.	To what Places exported.	Millions.
Manufactures	10	To Holland	6½
Coffee	7	France	7½
Sugar	6	Spain and her colonies	3½
Cotton	1	Hanse Towns	3
Carried over	24	Carried over	20½

Foreign Merchandize.	Millions.	To what Places exported.	Millions.
Brought over ..	24	Brought over...	20½
Tea	1	England and her colonies.....	8½
Wines	1	Italy	1
Red pepper	1	Portugal	0½
Black ditto	1	Denmark	1½
Spirits	0½	Sweden, Prussia, and Russia	0½
Indigo	0½	All other parts	1½
	29		29

To Europe ..... 21 millions.
To the West-Indies and America 7
To Asia, &c. 1
29

TABLE III.—*Average Imports of three Years, 1802-3-4.*

	Millions.		Millions.
Manufactures	39½	From England and her colonies .. .	36
Coffee	8	From Holland, France, Spain, and Italy	25¼
Sugar and molasses	9	From Russia, Prussia, and Germany	7
Spirits	6		
Wines	3		
Tea	2⅓		
Hemp	1		
Carried over..	69	Carried over..	68¼

Commerce.

	Millions.
Brought over ..	69
Nails, lead, steel, and coals	0¼
Salt	0¾
Black and red pepper	1
Cotton	0¾
Indigo	0½
Cacao	0¼
Malt liquor and Cheese . 150,000 / Boots and shoes .. 100,000	0¼
Sundries and fractions	2
	75¼

	Millions.
Brought over..	68¼
From Portugal	1
From China	5
From all other parts	1
	75¼

Recapitulation.

	Millions.
Total exports of home produce ..	39½
Total foreign ditto	29
Total of exports ..	68½

	Millions.
Total imports from Great Britain ...	36
From other parts of the world	39¼
	75¼

Balance against America 6¾ millions of dollars. This unfavourable balance is however only apparent, the profits of freight not only covering it, but giving a clear balance to the United States of five millions.

Table

TABLE IV.—*Exports of each State of the Union in* 1805. Commerce.

(Fractions of 1,000 omitted.)

	Home Produce.	Foreign Merchandize.	Total.
New Hampshire	390,000	220,000	610,000
Massachusets ..	5,700,000	13,738,000	19,438,000
Rhode Island ..	1,065,000	1,506,000	2,571,000
Connecticut ...	1,353,000	90,000	1,443,000
New York	8,098,000	15,384,000	23,482,000
New Jersey....	20,000	—	20,000
Pensylvania....	4,365,000	10,000,000	14,365,000
Delaware.....	78,000	280,000	360,000
Maryland.....	3,408,000	7,451,000	10,859,000
Columbia.....	1,135,000	188,000	1,320,000
Virginia	4,946,000	661,000	5,607,000
North Carolina.	767,000	12,000	779,000
South Carolina .	5,958,000	3,109,000	9,067,000
Georgia	2,351,000	44,000	2,395,000
Louisiana	2,500,000	500,000	3,000,000
	42,334,000	51,183,000	95,315,000

The United States possess all the materials for the construction and equipment of a navy, their forests affording a profusion of timber and masts, pitch and tar, and their territory affording copper, iron and lead; they are still, however, dependant on the north of Europe for a considerable portion of cordage.

In

Navy. In 1807 the government vessels were,

5 frigates of 44 guns.
4 ditto 36
6 ditto 32
8 ditto 26 to 20.
3 sloops of 18
2 brigs of 18
5 schooners of 14 to 12.
7 gallies.

Manned by 7,532 men, and the annual expense 1,236,000 ducats. At the close of 1814 the Americans launched their first two-decker, rated 74 guns but carrying 90.

EAST FLORIDA.

The province of East Florida is separated from Georgia by the river St. Mary, and includes the peninsula and tract of coast on the gulf of Mexico to the river Apalachicola. The eastern, or Atlantic coast, of the peninsula, is lined by islands, forming an interior navigation through lagoons or inlets. The principal rivers on this coast are the St. Juan and Indian; the former rises in a swamp in the heart of the peninsula, and pursues a northern course in a broad navigable stream, expanding into lakes, of which Lake George is fifteen miles broad and fifteen to twenty feet deep, with many beautiful islands, covered with orange, palm, and magnolia trees. Near Long Lake, which communicates with the St. Juan by a creek, is a warm mineral spring of great volume; the St. Juan is crossed by a bar at its mouth with fifteen feet.

Indian or Hillsborough River runs from north to south parallel to the coast; its mouth is crossed by a bar with but five feet.

St. Augustine, the chief town of East Florida, is on the main opposite the north end of Anastasia Island. It consists of four streets, intersecting each other at right angles; is fortified by

by bastions, encompassed by a ditch and wall, and defended by the castle of St. John, mounting fifty guns. The entrance to the harbour is crossed by a bar, with only five feet at low water and ten at high. St. Anastasia Island is six leagues long, and affords good building stone, which is not to be had on the main.

From Cape Florida, near the S.E. extremity of the peninsula, a great belt of keys and reefs curves round the promontory into the gulf of Mexico, bearing the general name of the Martyrs, or Florida Keys; the numerous channels or inlets between them are only fit for small craft. Almost all these keys are covered with the mangrove, and frequented by turtle; all of them have received names from the English, when in possession of Florida. The only farther notice they deserve is, that on the north end of Old Matacumbe, an islet four miles long and two broad, is a harbour for vessels of seven or eight feet, where fresh water may be procured from a natural well, in a rock four feet deep. On Key Hueso, or West, which is seven miles long, is also a good harbour, with four fathoms at the west end, and at the S.W. several wells of tolerable water. The dry tortugas (turtle) are a cluster of keys, forming the western extreme of the Florida keys.

Punta Blanco, or Cape Sable, is the S.W. point of the peninsula of Florida, doubling which we enter the gulf of Mexico.

GULF OF MEXICO.

The GULF of MEXICO is entered between the peninsula of Yucatan and the island of Cuba, and its egress is between Cuba and the promontory of Florida; its length east and west is 1,000 miles, and its greatest breadth north and south 720 miles. On the east it is bounded by the low and sandy shores of the peninsula of Florida, from whence, the north shore particularly, between the Mobile and Rio del Norte, is composed of marshes. The west coast, or that of Mexico, is lined by lagoons and islands, with few intervals, to the peninsula of Yucatan, which latter is composed entirely of the alluvion of the sea, and surrounded by coral reefs and bays.

The Gulf of Mexico is remarked by seamen for its thunder squalls, tornadoes, water-spouts, and long calms, all concomitants of a hot and moist air. These phænomena are ascribed to the trade wind, which, constantly rushing into the gulf from the Atlantic, and being there imprisoned as it were by the surrounding lands, causes opposite currents of air, particularly near the shores; thus in the southern part of the gulf the prevailing winds are from S.E. and E. in summer, and in winter from N.E. with heavy storms from the north-west, the winds, as in all other cases, blowing towards the region most heated by the presence of the sun. For the same reason, the prevailing winds in the gulf west of the peninsula

of

of Florida are from the N.W. and W., the heated atmosphere of the sandy shore of the peninsula drawing the current of air towards it. The promontory of Florida is also noted for the tornadoes experienced near it from May to August, and which come from the S.W. or S.S.W. The N.W. winds blowing from the lofty mountains of New Mexico, bring with them an extraordinary degree of cold, which causes the thermometer at the Havannah to fall at times to the freezing point in winter, and at Vera Cruz to sixty degrees.

In addition to the general notice of the current of the Gulf of Mexico in the Introduction, the following observations are offered.

1. The mass of water that flows into the gulf from the Atlantic raises the level of the former considerably above that of the Pacific, on the opposite side of the isthmus of Panama.

2. In the gulf (more properly the channel) of Florida the velocity of the stream is five miles an hour.

3. After quitting the channel of Florida the stream has hollowed itself out a very deep channel at the bottom of the ocean, there being no soundings across it.

4. The stream runs parallel to the coast of America, at the distance of twenty leagues, until it strikes against the salient shoals off Cape Hattaras, which turn it off a point and a half of the compass, and it is said to wear away the land of this cape.

5. From Cape Hattaras the stream again takes a direc-

a direction parallel to the coast, to Nantucket Island, increasing its breadth and decreasing its velocity, until at this island it forms a sort of eddy, and its depositions have created the shoals off it as well as the peninsula of Cape Cod.

6. The banks of Newfoundland also appear to be formed by the combined depositions of the gulf stream and polar current, and there is reason to suppose that the Great Bank is constantly increasing at its southern extremity, the ancient deep channel of the stream extending to the north of the present.

7. At each edge of the gulf stream, a counter current is experienced, which on the side of the continent, in conjunction with the streams of the rivers, cause the muddy deposit along the coast technically named "the soundings."

8. In S.W. winds the surface of the gulf stream is smooth, the waves and the current being in unison, but N.E. winds for a contrary reason create a hollow sea dangerous to undecked vessels.

The tides in the Gulf of Mexico are so inconsiderable, as to be scarcely distinguished from the occasional elevations caused by the strong currents and winds. On the southern shore of the gulf the perpendicular rise is but twelve to fourteen inches.

All the west coast of the peninsula of Florida is low, sandy, and lined by a reef. The Gulf of Ponce de Leon (Chatham Bay of the English) is limited by Cape Sable on the south and Punta Largo on the

the north: the accumulation of sand is now so great that eight leagues off shore the depth is only four fathoms.

Cerasecos (Charlotte Harbour of the English) is an extensive inlet with many islands before it, forming several channels, in the deepest of which, named *Boca Grande*, the depth is fifteen feet. The inlet receives the river Caloosa.

Palm Sound, within Palm and Clam Islands, is only navigable by long boats. Espiritu Santo Bay is a considerable gulf with a channel in twenty feet deep.

St. Martin's Keys are the southernmost of a chain of islands that line the coast to the river St. Juan. This part of the coast is so shoal, that a canoe can scarcely approach it. The river Apalacha falls into a bay of the same name, at the fort of St. Mark.

WEST FLORIDA.

The coast from the Apalacha to Pensacola is tolerably fit for cultivation; but from this last place to the Mobile it is sandy and barren, producing only dwarf pines and cedars. The river Apalachicola, or Chattahoche, falls into St. George's Sound within the island of this name, which is two leagues from the main and four leagues long but very narrow.

The Bay or lagoon of St. Joseph is enclosed on the south by the curving peninsula of which Cape St. Blaize is the extreme point.

St.

St. Rose Island, twenty miles long but very narrow, has plenty of fresh water: its west end forms the east side of the entrance to Pensacola Bay.

Santa Maria Galvez, or Pensacola Bay, is a large inlet entirely land locked, the entrance two miles wide with sixteen to twenty-four feet depth and within thirty to thirty-five feet, according as the water is elevated or depressed by the strength of the winds. Several rivers fall into this inlet, of which the largest is the Shambe, and is navigable for sloops a few miles, and for canoes a considerable distance.

The town of PENSACOLA, the capital of the province, is on a plain on the west side of the bay, and is defended by a fort on a sand hill, close under which all vessels must pass to the town.

While Florida was an English possession, Pensacola carried on a considerable trade; but under the restrictive system and indolence of the Spaniards, it has fallen into insignificance and poverty, the only branch of industry attended to, because it requires little labour, being the rearing of cattle. The sole trade is to New Orleans, and does not occupy above four or five schooners of ten to twenty-five tons, which keep along shore to the mouth of the Mobile, where they enter the sounds between the islands and the main to Lake Pontchartrain: from this lake they enter the river St. John, which communicates by a short canal with New Orleans. The length of this internal navigation is but fifty leagues, and it is usually accomplished in two days, while the outer passage to

New Orleans by the mouths of the Mississipi, is ninety leagues, and from the strong adverse current and prevailing winds from the west is often lengthened to forty days.

The climate of Pensacola is so healthy that invalids are sent hither from Louisiana.

The river Alabama, or Mobile, falls into a large gulf, whose entrance is between a long peninsula on the east and Isle Dauphin on the west. The town of Mobile, at the mouth of the river, is built on the side of a hill.

The coast west of Mobile Bay is lined by low sandy islands covered with cypress trees, their names in succession are Isle Dauphin where the French formed their first settlements, Masseo, Horn, Dog, Vaisseau, from having a harbour for vessels of burden, Cat, &c. Farther west a great number of alluvion islands front the entrance of Lake Pontchartrain and the Bay of St. Esprit. The channels between these islands have in general but ten to twelve feet, and the depth of Lake Pontchartrain decreases annually, so that it is probable a few years will convert it into a marsh, as well as Lakes Maurepas and Borgne, the former communicating with the Mississipi by Iberville River, which is quite dry in summer, its bed being twelve feet above the lowest level of the Mississipi; but in spring, when the river rises, it discharges a part of its waters by the Iberville into Lake Pontchartrain. Biloxi, on the main land within Vaisseaux Island, was one of the first establishments of the French in Louisiana.

The

LOUISIANA.

The country of Louisiana is separated from Florida, by Lakes Pontchartrain and Maurepas, and by the river Iberville to the Mississipi. It would however appear that the United States claim the territory between the Mobile and Mississippi, as within the natural limits of Louisiana. On the west the limits are also a subject of dispute, Spain confining them to the River Mexicana and the Americans extending them to the Rio Brava del Norte.

Having already described the Mississipi and its navigation in detail, we have here only to observe that from the Fort of Balize, on one of the alluvion islands at its mouth, where pilots are taken for the river, the banks for fifteen leagues are low and swampy, covered with reeds and mangroves, and incapable of improvement, or of being inhabited. The first establishment is at Plaquemine on the right bank, ten leagues above Balize, where is a brick fort, and on the opposite side another named Fort Bourbon, whose fires cross, the former mounts twenty-four large cannon. After passing these forts the banks of the river grow more elevated, and the aquatic plants are gradually replaced by brushwood and trees. Five leagues above Plaquemine, the first cultivation is met with, in small scattered fields on the banks of the river, which are higher than the land within them; being raised by the depositions of the river

in its rises. This elevated bank or ridge is not above a mile wide, beyond which the whole country is a vast marsh covered with cypress trees.

New Orleans is situated on the left bank of the Mississipi thirty-five leagues above Balize, and on an island formed by the main river on the west and south, by the River Iberville and Lakes Pontchartrain and Maurepas on the north, and by the Lake Borgne and St. Esprit on the east. The island is sixty leagues long, and two to fifteen broad, but the only portion of it susceptible of cultivation is the elevated bank of the river which is here about four miles broad. At the town the river is 1000 yards wide and forty fathoms deep, and the bank so steep that the ships lay a plank to the shore.

The town is composed of some neat brick houses and miserable wooden ones. The former, but of one story, are built on piles, the proximity of the water to the surface not admitting of sunk foundations; the streets are in fact lower than the base of the river in the rise, and are only kept from inundation by the greater height of the bank, through which however the water filtrates, and a canal is cut in the middle of every street to receive it. These canals all unite, and deliver the water they receive into a navigable canal cut from the town to the creek of St. John, which communicates with Lake Pontchartrain. The town consists of three streets parallel with the river 600 fathoms long, intersected at right angles by others 300 fathoms long, the marshes preventing their greater

greater extension backwards: all the streets are sixty feet wide, with raised footways of timber at each side five feet wide. The public buildings are the town house, church, military and civil hospitals, barracks, and playhouse. The population in 1801, was estimated at 10,000, *viz.* 4,000 whites, 250 free people of colour and the remainder slaves.

Before the cession of Louisiana to the United States, the balance of commerce was considerably against it, and was paid in specie sent from Mexico. In 1801, the exports from New Orleans were

	Dollars.
Cotton, two millions of pounds, worth	500,000
Sugar and syrop, four do, ...	300,000
Indigo, tobacco, &c.	200,000
	1,000,000

The coast west of the Mississipi to the limits of the territory, is composed of low alluvion islands, without any settlements.

WEST INDIA ISLANDS.

THE WEST INDIA ISLANDS form an irregular chain between the peninsula of Florida and the north-east extremity of South America, inclosing the Caribbean Sea and Gulf of Mexico. By the French geographers they are divided into the Great and Little *Antilles*,* and the latter are also distinguished by the denomination of Windward Islands, *(Isles au Vent)*, in respect to their Great Antilles, or Cuba, St. Domingo, Jamaica, and Porto Rico.

By the English, the Little Antilles of the French are called the Caribbee Islands, and are distinguished, not very correctly, into Windward and Leeward; the former comprising all those between Grenada and Martinique inclusive, and the Leeward Islands including all those from Dominica inclusive to Porto Rico.

The

* The origin of this name is thus explained by Mr. Pinkerton, vol. III. p. 4. "The mathematicians of the middle ages holding the *necessity* of a southern continent, also *supposed* the existence of lands in the hemisphere between Europe and Asia, to balance these continents, and, accordingly, imaginary lands were laid down at random, west of the Canaries, to which was given the name of *Anti-Insulæ*, or *Antinsulæ*, signifying islands opposite the continent; thus in the chart of Andrew Bianca, 1434, the *Yeola de Antillia*, and *Delaman Satanaxio*, or Satan's own-hand, are placed west of the Canaries.

The Leeward Islands of the Spaniards *(Sotovento)* are those off the coast of Terra Firma, west of Trinidad. The Bahama Islands form a distinct archipelago, north of Cuba. The Virgin Islands, between Porto Rico and the Caribbees, are included in the political division of Leeward Islands.

In general the West India Islands are elevated, and the larger ones, particularly St. Domingo and Jamaica, present mountains whose summits are visible thirty leagues.

With respect to the climate, the temperature differs little throughout the year; nevertheless, the variations follow the course of the seasons as in Europe, July and August being the hottest months, when the maximum of the thermometer exposed to the sun, and with a clear sky, is 145°, and in the shade (on shore) 87°, but at sea only 83°. The months of December and January are the coldest, when the lowest state of the thermometer is 72°.

The year may be divided into four seasons, the first commencing with the vernal or moderate rains in April and May, which usually last six weeks; the second season includes June, July, and August, and is hot and dry; the third, September, October, and November, or the hurricane and rainy months; and the fourth, December, January, February, and March, which are the most serene and coolest months.

The West India Islands are subject to frequent earthquakes, which probably proceed from the

 weakened

weakened operation of subterranean fires, by which it appears these islands were originally produced, there being evident vestiges of volcanoes in the whole of the Caribbees, except Barbadoes, which, however, has other unequivocal indications of being also produced by a convulsion of nature.

These islands, on their first discovery, were found inhabited by two races, materially differing from each other. The Caribbs occupied the chain of lesser islands, to which geographers have attached their name, and are by some thought to have come from Florida, while others, with more probability, consider them as a colony from the country of Guiana, where their race is still found. The description of this people has a singular resemblance to that of the New Zealanders, being like these latter a robust, fierce, and warlike race of cannibals, sacrificing and devouring their prisoners taken in battle, painting their faces and bodies, and tracing white and black circles round the eyes, raising cicatrices on the cheeks, piercing the cartilage of the nose, and thrusting fish bones and parrots' feathers through it, wearing necklaces of the teeth of their enemies slain in battle, admitting a plurality of women, but who were condemned to every species of drudgery, at the same time that their tyrants were so jealous of them, that according to a French writer, the bare suspicion of infidelity was enough to induce them, without any formality, to *beat their brains out*; and, adds this writer, with the levity rather than the gallantry of his countrymen, "*Cela est un peu*

peu sauvage à la vérité, mais c'est un frein bien propre, pour retenir les femmes dans leur devoir." The women were also precluded from eating with the men.

The government of the Caribbs was patriarchal, the young men paying deference to the opinion of the elders; and the war chiefs were chosen solely for their courage, which was previously proved by their inflicting on themselves the greatest torments. Their arms were bows and arrows, and clubs.

The aboriginal inhabitants of the greater West India Islands, Cuba, St. Domingo, Jamaica, and Porto Rico, were a mild, and comparatively with the Caribbs, a cultivated people; these two races bearing nearly the same relations to each other as the New Zealanders and Society Islanders. Like these latter, the West Indians were delicately formed, indolent, and licentious in the intercourse of the sexes. Their chief amusement was dancing, and their *arietos*, or public entertainments of this nature, had a great similitude to the Otaheitean *heeva*, while others of their dances were extremely indecent. The governments were hereditary absolute monarchies, with a class of subordinate chiefs, bound to certain warlike services. This race seems to be identified with the *Arrowauks*, a people of Guiana, between whom and the Caribbs of the same country there always existed the most inveterate animosity.

The quadrupeds found in the West India Islands, on their discovery, amounted only to eight species,

species, all of the smaller kinds, and these were not even common to all the islands. 1st. The cary, or agouti, (*musaguti*), an animal between the rabbit and rat, which is now only found in the mountains of the larger islands; 2d. the pecary, or musk hog, (*sustajacu*), was only found in the Caribbee Islands, but has been exterminated; 3. the armadilla; 4. the opossum; 5. the racoon; 6. the musk rat (*piloris*); 7. the alco, or native dog, which did not bark; 8. the monkey of various small species, but which in many of the lesser islands has become extinct.

Amongst the birds was the beautiful flamingo, which the senseless principle of indiscriminate destruction that has hitherto marked European discovery, has entirely exterminated in most of the islands.

The serpents of the West India Islands are generally thought to be *not* venemous; but the rivers are infested by the alligator.

COLONIZATION

OF THE

WEST INDIA ISLANDS.

THE island named by the Spaniards HISPANIOLA, or Little Spain, and ST. DOMINGO, and by the aborigines HAYTI,* received the first European colony in America. In 1493, Columbus was led to this island by learning from the natives of some of the lesser ones first discovered, that the gold ornaments they wore were procured from a larger island, the direction of which they pointed out, and he accordingly shaped his course for it; and landing on the north side, entered into a friendly exchange with the Indians of beads, knives, &c. for gold dust and provisions; and with their assistance constructed a little fort, named Nativity, in which he left thirty-nine Spaniards. The following year he returned to the island with 1,500 colonists, composed of soldiers, artificers, and monks; but found that the Spaniards he had left behind had been all massacred, and the fort destroyed

* *i. e.* Mountainous: they also called it *Quisqueia*, or the Great Country.

destroyed by the irritated and injured natives. Columbus, however, wisely smothering his anger, proceeded quietly to found his colony by the construction of a fort, named Isabella, on the coast, and another named St. Thomas, in the mountains of the interior, in the torrents of which the Indians collected gold dust. The search for this metal occupying all the thoughts of the colonists, they neglected to provide for their subsistence by cultivation, and the provisions brought from Spain being exhausted, they became entirely dependent on the Indians; but the latter having no superfluity, were unable to answer these demands without starving themselves; in order to avoid which, and to revenge the aggressions of the Spaniards, they determined to get rid of them by open hostilities: but naked savages, with no other weapons than bows, arrows, and spears, were little capable of opposing disciplined Europeans possessed of fire-arms; and though more than three-fourths of the Spaniards had been already carried off by disease, the remainder were sufficient to give a complete defeat to an army of 100,000 Indians; and in order to punish those who escaped from the battle, for this rebellious attempt, as the Spaniards thought proper to call it, every Indian, above twelve years old, was subjected to pay a tribute in cotton or gold dust. The industry the payment of this tax required, was so contrary to the habitual indolence of the Indians, and to their principles of liberty, that it became insupportable; but as they had learned by experience

perience that they were unequal to oppose the Spaniards by force, they determined on obliging them to quit the island by famine, and for this purpose they refrained from cultivating the ground, dug up the roots of the manioc, and retired to the mountains, where vast numbers of them perished of famine, while the Spaniards penetrated their retreats with dogs trained to the purpose, and hunted and massacred them without mercy; so that of a million of inhabitants, which the island was supposed to contain on the arrival of the Spaniards, the one-third were destroyed in less than four years. The remainder, to preserve their existence, returned to the plains, and became the labourers, or rather the slaves of the Spaniards.

The emigration of voluntary settlers from the mother country being very trifling, Columbus proposed to people the colony with criminals, whose offences were not thought worthy of death, and the goals of Spain were accordingly emptied upon the New World. From such subjects little good was to be expected; the habits of idleness and vice were too firmly engrafted, to be changed by their new situation, and their numbers rendering them too powerful to be kept in subjection by coercive means, it was found necessary to have recourse to palliatives, several of which were tried without success. At last, in 1499, in order to conciliate these vagabonds, it was determined to accompany every grant of land with

with a certain number of native Indians, as labourers. This flagitious measure did not, however, reconcile the turbulent colonists to the government of Columbus, and in 1500, in consequence of their intrigues, he was seized, and sent to Spain in chains; and though, on his arrival, his innocence was publicly acknowledged, he was not restored to the command of the colony.

The mines, which when first discovered were tolerably rich, decreased so rapidly, that the crown was obliged, successively, to reduce the share it retained of the produce, from one half, to one-third, and one-fifth; and, finally, the discovery of the richer mines of Mexico, caused those of Hispaniola to be entirely abandoned. Not only the cultivation of the soil, but also the working of the mines, devolved entirely on the wretched Indians, whose physical strength being totally inadequate to such unaccustomed labour, with the addition of their moral sufferings, rapidly carried them off, and at last entirely exterminated the race.

The abandonment of the mines caused a considerable part of the Spaniards of Hispaniola to desert the island, and seek a shorter road to fortune on the continent, and the few who remained were obliged to resort to cultivation for the means of subsistence; but as Europeans were supposed to be incapable of labouring the earth in this equinoctial climate, and as the native Indians were

were extinct, it became necessary to seek slaves in some other quarter, and the west coast of Africa presented a race, which, according to the libellers of Almighty wisdom and goodness, were fitted by nature for slavery only. The introduction of negroes did not, however, give any considerable impulsion to the prosperity of the colony, and its decline was accelerated by the depredations of the Buccaneers, a confederation of chiefly French and English freebooters, who long infested the West-Indian seas, and committed the most daring and incessant depredations on the Spaniards.

The origin of these celebrated associations is traced to about the year 1625, when the French and English, being driven from the island of St. Christopher, determined to fix themselves on the north coast of Hispaniola, then almost depopulated by the emigration of the Spaniards to the continent; they therefore drove off the few Spaniards they found on the little island of Tortuga, and fixed there their head-quarters.

At first they subsisted by hunting the wild cattle on the neighbouring coasts of Hispaniola, the hides of which they sold to such vessels as approached the island, in exchange for cloathing, liquors, arms and ammunition. Their food consisted chiefly of the meat of these cattle, eaten fresh or smoked, according to the method of the native Indians, in places called by these latter *Buccans*, whence the name of *Buccaneers*, by which they are generally known in English history. The French denomination of *Flibustiers*, is

is a corruption of *Freebooters*, by which the English also designated them.

At length the wild cattle becoming scarce, the Buccaneers were necessitated to seek other means of subsistence, and the steadiest of them applied themselves to agriculture, while those of a restless disposition associated themselves with the pirates of all nations, and under the name of *Brothers of the Coast*, which they assumed, formed the most desperate band of lawless plunderers that ever infested the ocean.

Their first excursions were made in open boats, containing twenty to thirty men, in which they boarded the largest merchant vessels, and usually carried them by their desperate courage. Though they often made no distinction of nations, the Spanish vessels, as being by far the richest, were most particularly the object of their pursuit.

While acting contrary to every law, human or divine, and given up to the grossest debauchery, the Buccaneers, pretending to consider the plundering the Spaniards as a meritorious act, and as a proper retaliation for their cruelty to the native Indians, never failed to implore the divine assistance in their expeditions, and to return thanks for their successes.

Their regulations for the division of plunder were religiously observed, and if any individual was found to have concealed any part, he was without pity turned ashore on some desert island. A fund was also established for the assistance of their sick and wounded.

From

From piracy on the seas alone, the Buccaneers extended their depredations to the continent, and, forming themselves into large bodies, plundered the greatest towns of the Spaniards in the New World, and on the shores of both the oceans, Maraycaba, Campeachy, Vera Cruz, Porto Bello, and Carthagena, as well as Guayaquil, Panama, &c. being pillaged by them.

This confederation continued until 1690, when the war between England and France caused a separation of the Buccaneers of the two nations, and England being at the same time in alliance with Spain, found it necessary to repress the piracy of her subjects against that nation in the West-Indian seas. The French Buccaneers continued their career a few years longer, but the peace of Ryswick in 1697 restoring the friendly relations of France and Spain, they had no longer a field to exercise in, and in a very few years the name of Buccaneer was no longer heard.

The Buccaneers did not, however, enjoy the quiet possession of the island of Tortugas, for the Spaniards, in their turn, watching an opportunity when the greater part of these freebooters were absent, fell on the few that remained, whom they massacred, and regained possession of the island; but in 1638 the Buccaneers again retook and fortified it.

The English and French now quarrelling, and the former being the weaker, were obliged to quit the island, which between this period and 1659 was three times regained and lost by the Spa-

niards. In the latter year the French got a firm footing on it, and then first began to fix themselves on the neighbouring coast of the Great Island, in spite of the opposition of the Spaniards; and in 1665 France, which had hitherto either paid no attention to the projects of her subjects on this island, or disavowed them, now when they began to acquire consistence, acknowledged their enterprises, and sent out d'Agerau as their governor, who by his wise administration reduced a band of lawless pirates to comparative order and subordination.

But as the French adventurers were without women, the colony must have soon fallen to pieces, had not the government at home endeavoured to provide the colonists with wives, by offering very high rewards to poor young women of good character; and by this means 100 girls were induced to transport themselves, and were on their arrival in the colony sold to the highest bidders. The liberal offers of government not being, however, sufficient to induce any considerable number of *modest* women thus to sell themselves, recourse was had to women of the town, who hired, or rather bound themselves, to cohabit for three years, with the person to whom they should be allotted. The confusion caused in the colony by these abandoned creatures, made it necessary to prohibit their further exportation, and many of the colonists were in consequence obliged to quit the island, for want of companions.

Nevertheless, under these unfavourable circumstances,

stances, and subject as they were to the open hostilities and treachery of the Spaniards, the French continued to encrease, until the accession of Philip V. to the crown of Spain (1701), when the interests of the two nations being united at home, their subjects were forbidden to molest each other abroad, and the French remained in quiet possession of the east end of the island, though their limits were not agreed on until 1776.

The progress of the French was so rapid, that in 1790 the population amounted to 31,000 whites, 24,000 free people of colour, and 480,000 slaves,* and the annual export of produce exceeded four millions and a half sterling (value in the island). The spirit of revolution in the colony was coeval with that in the mother country, and in 1791 an insurrection of the negroes deluged the northern part of the colony with the blood of the whites. The wavering conduct of the first national assembly with respect to the emancipation of the slaves, and the decree of the legislative assembly, placing the free people of colour on a political equality with the whites, only increased the flame of insurrection, and in June 1793 a body of negroes entered Cape Français, massacred the whites without distinction of age or sex, and reduced the town to ashes.

The Royalist party amongst the whites now solicited the English to take possession of the colony, and a force was sent from Jamaica for this

 purpose,

* Edwards's History of the West-Indies; other accounts make the population at the Revolution near 700,000.

purpose, which succeeded in getting possession of some of the principal places; but though the British troops were reinforced with an intention of prosecuting the war with vigour, the terrible mortality among them, combined with other reasons, caused the island to be evacuated in 1798, after it had been the grave of the flower of the British army.

On the calling in of the English the revolutionary commissioners, who had been sent from France to *organize* the colony, but who had completely *disorganized* it, concluded their administration by the most desperate measure that could have entered into the heads of frantic republicans, that of declaring the general freedom of the slaves, under the idea of their joining them in the defence of the colony against the English. The sole effect of this declaration was, however, causing vast numbers of the slaves to quit their masters and retire to the mountains, where they planned the means of their future independence, which they declared formally in 1801.

In 1802, France being delivered from the war with England, turned her views to the recovery of the colony, and for this purpose 20,000 veteran soldiers were sent out, under the command of Le Clerc, Buonaparte's brother-in-law. But the exterminating principle on which the war was conducted against the negroes, had no other effect than to give a desperate energy to their resistance, at the same time that the yellow fever carried off the French as it had done the English; and, finally,

ly, the surviving wreck of their army being besieged in Cape Français, was forced to agree to evacuate the island; but the negroes, announcing their intention of sinking their ships with red hot shot, they were obliged to claim the protection of the English squadron cruising off the port, to whom they surrendered as prisoners of war, and were conveyed to Jamaica. In November 1803 the negroes again proclaimed their independence, and the first of January 1804 the ancient name of *Hayti* was restored to the island. Dessalines, a negro general, was declared governor for life, and in September of the same year assumed the title of *Emperor* of *Hayti*; he however fell in a conspiracy, and the island has since been convulsed by the contests of Christophe and Petion, the two leading negro chiefs. The former, having taken the title of Henry I., King of Hayti, keeps possession of the north part of the island, and makes Cape Français his royal residence; while Petion, under the more modest name of *President*, governs the southern part, and has his headquarters at Port au Prince. Both these chiefs seem determined to defend their liberties against every attempt of the French to regain a footing in the island; and it would appear that their proclamations on this subject are not empty boastings, the armies of Hayti being represented as numerous, well armed, and perfectly disciplined, and the fortifications, particularly in the mountains, as impregnable, and well supplied with every thing necessary to carry resistance to extremity.

With respect to the moral and social state of the Haytians, they are described as having no form of religious worship, and as admitting and encouraging a plurality of wives. The court of Henry I. is a burlesque imitation of the *ci-devant* court of St. Cloud, the *negro* king being surrounded by his *Grand Chamberlain*, his *Marshal of the Palace*, *Ministers of the Interior* and *Exterior*, *grand croix* of the legion of honour, dukes, counts, and barons, &c. &c. Sumptuousness in dress is carried to excess by the negro *nobles* and *gentry*. The problem, however, still remains to be solved, whether the African race is by nature capable of forming a stable civilized community, or whether, according to Mr. Edwards, the Haytians "will become savages in the midst of society; without peace, security, agriculture, or property, ignorant, of the duties of life, and unacquainted with all the soft and endearing relations which render it desirable; averse to labour, though frequently perishing of want, suspicious of each other, and towards the rest of mankind revengeful and faithless, remorseless and bloody-minded; pretending to be free while groaning under the capricious despotism of their chiefs, and feeling all the miseries of servitude without the benefits of subordination."

Under the prohibitory colonial system of Spain, the Spanish part of St. Domingo remained in a kind of stationary torpidity, there not being even a practicable road in this part of the island. Its population, in 1800, was estimated at 100,000 whites

whites and free people of colour and only 15,000 slaves. The produce was inconsiderable, there being but twenty-four sugar-works, still fewer of coffee and cocoa plantations, none of indigo, and the other agricultural objects were rice and wheat for the consumption of the inhabitants and some tobacco. The breeding of cattle requiring little labour, was more suitable to the Spanish indolence, and hence the French part of the island was supplied with them from the Spanish. By the treaty of Basle, Spain ceded her portion of the island to France, but it was taken from these latter by the English in 1809, and restored to Spain by the treaty of Paris 1814.

Porto Rico, discovered by Columbus in 1493, and thus named from the gold ornaments observed amongst the natives, first received a colony of Spaniards from Hispaniola in 1509, and by the same flagitious conduct, the natives were quickly exterminated; but the colonists being continually disturbed by the invasions of the Caribbs of the neighbouring islands, the island remained in a state of insignificance. In 1595, Sir Francis Drake took and plundered St. John's, the chief town; and three years after, the Earl of Cumberland invaded the island and carried off a great booty. In 1606 the Dutch got possession of the island, and in 1615 St. John's was taken by the English. It has since been invaded at various times by the French and English, the last of which was in 1797, when the English made a formidable

attack on St. John's, but were obliged to re-embark without accomplishing their purpose.

CUBA, discovered in 1492, received a Spanish establishment in 1511, and the consequent extermination of the natives followed by their condemnation to the mines, aided by the small pox, a new disease which they also received from the Spaniards. The mines being found of little value, the island would probably have been abandoned, had not its position in the direct route to Mexico, then just conquered by Cortez, and its excellent port of the Havannah, given it a considerable local importance. This port was accordingly fortified, but the progress of improvement was so slow, that in 1735, it was thought proper to grant the monopoly of its commerce to an exclusive company, whose government was established at the Havannah, and who had merely a factory at Cadiz; but the mal-administration of this body produced its total bankruptcy, and in 1765, the commerce was made free to all the subjects of Spain.

The little island of CABAGUA was discovered and despised by Columbus in 1498; but the Spaniards, some time after, learning that the banks in its vicinity abounded in pearls, flocked to it in 1509, and gave it the name of *Isle of Pearls*. The avidity with which the fishery was carried on, however, soon exhausted the banks, and in 1524 the island was abandoned for that of MARGARITTA, which offered the same source of riches, but which was also as speedily exhausted. Nevertheless this latter

latter island was retained, in order chiefly to prevent other nations from taking possession of it.

BRITISH ISLANDS.

The civil and religious dissensions which tore England to pieces, and at last brought Charles I. to the block, gave rise to the first British establishments in the West Indies. A number of persons of moderate principles and peaceful dispositions, flying from the horrors of a sanguinary civil war, sought refuge in these islands, and the tranquillity they afforded them increased emigrations, so that while the mother country was wasting the blood of her children at home, others of them were founding the great fabric of her future greatness.

During the infancy of the British colonies, their commerce was under no restraint, and they might export their productions whither they thought fit, or dispose of them to all those indifferently who came to their ports to seek for them; but the Dutch being then the naval carriers of Europe, took off by far the greater part, so that the mother country benefited very little by their possession until 1651, when the famous Navigation Act was passed, which shut the ports of the colonies to all foreign flags, and obliged the colonists to export their productions direct to the mother country, in British ships only. This regulation still exists in full force, with the exception of rum and melasses, which

which are allowed to be sent to America in exchange for objects necessary to the islands, as corn, provisions, stores, and lumber; but this trade is likewise confined to British vessels navigated according to law, though this restriction has been relaxed during the late wars, neutrals being allowed to carry it on.

The staple productions of the West India Islands are sugar, rum, coffee, and cotton, besides which they export pimento, cacao, indigo, tamarinds, ginger, castor oil, tortoise-shell, arrow root, and various woods, as mahogany, logwood, fustic, and lignum vitæ.

The governments of the British islands are called *royal* governments, consisting of a governor appointed by the crown, a council, and legislative house of assembly chosen by the colonists from amongst themselves. The British Leeward Caribbees are included in one government, and the governor, who has the title of Captain General of the Leeward Caribbees, resides at Antigua. The common law of England is that of the colonies with respect to the white population, but the slaves are governed by colonial laws, enacted by the legislative assemblies, the life of the slave alone being protected by particular statutes enacted in Great Britain.

Barbadoes was discovered by the Portuguese, in their return from Brasil and received the first British colony in the West Indies, James Town being founded by them in 1624 or 5. At this period it did not appear to have ever had any inhabitants,

habitants, nor did it afford either vegetables or animals for the sustenance of man. The island being granted by Charles I. to the Earl of Carlisle, that nobleman, in 1629, sent out a number of colonists at his own expense, who being in general industrious, and possessed of some capital, the island was soon cleared and brought into cultivation; and so rapid was the progress of population, in consequence of the emigrations from England, caused by the civil war, that in 1650 the island contained the astonishing number of 50,000 whites, and a number of Indians and negro slaves.

St. Christopher was discovered and thus named by Columbus after his patron saint. It was occupied jointly by the French and English in 1625; but three years after, both were dispossessed by the Spaniards. These latter neglecting it, the former returned, and continued to possess it in equal portions until 1666, when the war in Europe caused hostilities between the two people on the island, which ended in the expulsion of the French in 1702, and by the treaty of Utrecht it was secured to England. In 1782 it was taken by the French, but restored in 1783.

The little island Nevis was discovered by Columbus, who is said to have given it this name, from the erroneous opinion that its summit was covered with snow.* A part of the English driven

* This idea probably proceeded from *white smoke*, which may at that time have issued from its crater.

ven from St. Kitts by the Spaniards in 1628, took refuge at this island, and formed the first establishment. In 1706 it fell into the hands of the French, but was restored by the treaty of Utrecht; it was also taken by the French in 1782, but restored in 1783.

MONTSERRAT was first settled by the English in 1632.

ANTIGUA was discovered by Columbus, and named after the church of Santa Maria de *Antigoa*, at Seville. It was then uninhabited, doubtless from its total want of fresh water. A few French families driven from St. Kitts, in 1628, were its first European inhabitants, but again abandoned it. When the English first occupied it is not exactly known, but about thirty families were established on it in 1640. In 1666 it was included in a grant of several islands from Charles II. to Lord Willoughby, who sent out a considerable number of colonists. In 1680 it reverted to the crown.

ANGUILLA was first occupied by the English in 1650.

GRENADA, on its discovery by Columbus, was thickly inhabited by Caribbs, who continued undisturbed till 1650, when a party of French, from Martinique, invaded it; and the Indians, defending their rights, were, by a course of atrocities unequalled even by the Spaniards, almost totally exterminated. The progress of their destroyers was not however rapid, from the dissensions among themselves, their number in 1700 being but 250, with

with 500 slaves. From this period the island improved rapidly, by the assistance it received from Martinique; and was in a flourishing state when captured, in 1762, by the English, to whom it was ceded by the peace of 1763. In 1779 it was taken by the French, but restored in 1783.

The Dutch found the Island of TOBAGO uninhabited when they first formed an establishment on it in 1632; but, being driven off by the Spaniards, the island was neglected till 1654, when the former people formed a second establishment on it; but were again dispossessed by the English in 1666, who, in their turn, lost it to France, by whom it was restored to Holland, but again taken in 1678 by the French, when the fortifications were destroyed, and the island entirely neglected, until England claiming it from the right of prior occupancy, took possession of it in 1761, and was confirmed in it by the peace of 1763. In 1781 it was taken by the French, and ceded to them in 1783, but again captured by the British in 1793. About 1648 the Dutch first formed an establishment on the Island of TORTOLA, but were driven off by the English in 1666. A few English families then settled on it, but it was deemed of so little consequence by the mother country, that until 1748 it had received no government; and it was only in 1773 that the Virgin Islands, possessed by Great Britain, received the same constitution as the other islands.

The

The Bahama Islands, discovered by Columbus in 1492, were thought no other ways worthy of notice by the Spaniards, than as they afforded Indians to work the mines of Hispaniola, and accordingly the unhappy natives were all conveyed to that island in 1507; and the archipelago remained uninhabited till 1672, when some English formed a settlement on the Island of Providence, from which they were driven seven years after by the Spaniards, but returned in 1690, and were again dispossessed in 1703 by the Spaniards and French united, but who formed no establishment.

In 1714 some Spanish vessels, richly laden, being wrecked on the Florida reefs, the Spaniards sent many vessels to attempt to fish up the treasure. So rich a prize tempted some of the inhabitants of Jamaica to endeavour at sharing in it; but this the Spaniards refusing to permit, one Jennings had recourse to force, to support what he called a natural right; but afraid of the consequences in thus violating the peace which existed between the two nations, he united with a number of other desperate adventurers, and became a professed pirate, making the Bahama Islands his rendezvous. The depredations committed by these bands, not only on foreign vessels, but also on English, obliged the British government, in 1719, to send out a force to reduce them, as well as to establish a colony on the Island of Providence.

Some of the pirates refusing the amnesty offered them, retired from the island to pursue their depredations

depredations in other parts, whilst others incorporated themselves with the new colonists.

After England and France had long disputed, with respect to the possession of St. VINCENT and DOMINICA,* it was agreed by the treaty of Aix la Chapelle, in 1748, that these islands, together with Tobago and St. Lucia, should remain neutral, and the Caribbs be left in unmolested possession of them. This treaty of neutrality was, however, satisfactory to neither of the European powers; and at the peace of 1763 the Islands of Dominica, St. Vincent, and Tobago, were assigned to Great Britain, and St. Lucia to France; the Caribbs not being mentioned in this division of the spoil. These people were indeed reduced to a miserable remnant; of the *Red* Caribbs, or aborigines, not more than 100 families remaining in 1763, to whom the English assigned a portion of the mountainous tract of St. Vincent. Besides these *Red* Caribbs there was on the island a tribe named *Black* Caribbs, the progeny of the cargo of a slave ship wrecked on the Isle Bequia, in 1675, and who, by marriage with Caribb women, and by the accession of runaway negroes from the other islands, had greatly multiplied; their number, in 1763, being upwards of 2,000. They at first refused to acknowledge the authority of the British government, but after some lives had been lost in a contest with them, a treaty was concluded in 1773, by which a portion

* Thus named by Columbus from being discovered the first on St. Vincent's Day, and the second on a Sunday.

tion of the island was allotted to them, and they submitted to the regulations enacted. They continued peaceable until the beginning of the French revolution, when their turbulent spirit bursting forth, and their openly favouring the French, obliged the government to act hostilely against them, and finally, on their subjection in 1797, to expel them the island, and transport them to Rattan Island, in the Bay of Honduras. In 1778 Dominica was taken by the French and St. Vincent's the following year; but both were restored in 1783.

JAMAICA * was discovered by Columbus in 1494, and received a Spanish colony from Hispaniola in 1509; but the same system of tyranny against the native Indians soon exterminated the race, and the consequent want of hands caused all the establishments to be abandoned, except St. Jago de la Vega, where, in 1655, the whole population of the island, amounting to 1,500 Spaniards and as many slaves, was collected.

In that year the English, under Penn and Venables, after their badly conducted and unsuccessful attack on St. Domingo, attempted to retrieve their credit by the conquest of Jamaica. They accordingly attacked St. Jago, which they easily got possession of, and with it the whole island, the Spaniards retiring to Cuba, and though they returned and made an attempt to regain the island, it was without success; and England has since retained her conquest undisturbed.

The

* This name is Indian, signifying "abounding in springs."

The first British colonists were 3,000 disbanded soldiers of the parliamentary army, who were followed by 1,500 royalists on the destruction of their party. Until the restoration the government of the island was entirely military, but at that period it received a royal government.

On the surrender of the island to the English, in 1656, the negro slaves of the Spaniards generally fled to the mountains, and from them sprung the race since known by the name of *Maroons*, whose depredations on the British plantations, and murder of the whites that fell in their way, obliged the government several times to act offensively against them, until they were at length forced to sue for peace, and in 1738 a treaty was concluded with them, by which their freedom was secured, and 1,500 acres of land granted them. They continued tolerably peaceable until 1795, when two of their people having been flogged for theft by sentence of a court of justice at Montego Bay, the whole tribe of Trelawney Town, one of their principal villages, rose, and attempting to gain the slaves, the island would probably have experienced all the horrors of St. Domingo, had it not been for the prompt and decisive measures of Lord Balcarras, the governor. As it was, the Maroons though not exceeding a few hundreds, commenced hostilities, with a kind of frantic desperation against some thousand regular troops and white militia, and several detachments of these troops falling into their ambushes were cut off, while every white person, without distinction of age or

sex, that fell in their way was massacred in the most ferocious manner.

A more vigorous system of hostilities, however, having been entered upon, the Maroons were hemmed in in the mountains, which, though affording impregnable positions, are entirely without river or spring; and after the water left by the rains in the hollows of the rocks was exhausted, their only resource was in the leaves of the wild pine,* but this resource was also soon exhausted; and at the same time a *singular* auxiliary force arrived in the island to act in concert with the troops; this consisted of about 100 *dogs* from the Island of Cuba, where they are used to hunt the wild bullocks, and which it was thought might be used with success against the Maroons in driving them from their retreats inaccessible to any human being but themselves. The panic that the accounts of the appearance and force of these animals struck into the Maroons, together with their deplorable state, brought them to offer submission, and a negociation was entered into, promising them their lives and liberties on certain conditions; but such was their infatuation that few of them accepted the terms, and consequently both troops and dogs were ordered to advance against them. The dogs were, however, kept in the rear, with the intention

* A plant that commonly takes root in the great forks of the branches of the wild cotton tree; by the conformation of its leaves it catches and retains the rain water, each leaf resembling a spout, and forming at its base a natural reservoir, which contains about a quart of pure water.

tion of being brought into action only in case of absolute necessity. This necessity fortunately did not occur, for the Maroons, now abandoning all hope, submitted on no other condition than sparing their lives.

The government of the island, on the final suppression of the insurrection, came to a resolution that the Maroons, who had not surrendered on the terms of the first negotiation, were not entitled to the benefits then offered them; but that they should be shipped from the island to some country where they would enjoy freedom, but from whence it would be out of their power to return to the island. In consequence of this resolution, in 1795, 600 of them were conveyed to Nova Scotia, where they were granted lands, and attempts made to convert them from their African superstitions and idolatry to Christianity.

TRINIDAD was discovered by Columbus in 1498, but was neglected till 1585, when a Spanish establishment was formed on it, more, it appears, for the purpose of preventing other nations from occupying it, than with the intention of efficiently colonising it; and, in fact, the progress was so trifling, that independent of the officers and monks, the population in 1766 did not exceed 1,600 persons, existing in a state of wretched poverty, their sole occupation being rearing cattle, which they disposed of by contraband to the English, French, and other islands. Since that period the progress has been more rapid, chiefly from the influx of insolvent debtors from the other islands. The island

was captured by the English in 1797, to whom it was confirmed by the treaty of Amiens.

FRENCH ISLANDS.

The first expeditions of the French to the West Indies were for the sole purpose of capturing the vessels of the Spaniards. Their rendezvous, when in want of water or repairs, was the Island of St. Christopher, on which they formed a small establishment in 1625; and their chief at the same time received a grant of this island from the crown, with permission to extend his establishments to all the other islands he might think proper, on the condition of paying to government the one-tenth of all the productions exported from the new settlements to France.

In 1626 a company was created to colonize the islands, with certain privileges for twenty years; but the Dutch supplying the colonists with European merchandise at a much cheaper rate than the company, a contraband trade was the consequence, which depriving the company of the profits of the commerce, it was obliged to resign its charter to a new association in 1642, which being equally unsuccessful, sold its privileges between 1649 and 1651 to private persons, and the islands were now held as fiefs of the crown, with almost sovereign authority to the proprietors. This second state of the colonies was not, however, more advantageous to the mother country than the former one of exclusive

sive companies, the Dutch still continuing to receive the greater part of the produce, in return for provisions and other merchandise. At length, in 1664, the government repurchased the whole of the islands from the proprietors for 845,000 livres, and granted the monopoly of their commerce to a company, which already possessed that of Africa, Cayenne, and North America. The encouragement granted to this company was insufficient to ensure success; and, in 1674, its affairs being in total disorder, the crown paid its debts, reimbursed the capital to the holders of shares, and taking the administration of the colonies into its own hands, laid open the trade to all the subjects of France, but excluded foreigners; and shortly after the importation of the produce was confined to a few ports of the mother country. These restraints, together with a tax of 100 pounds of raw sugar for every individual of both sexes in the islands, whether free or not, and high duties on the exportation of the productions, prevented the improvement of the islands until 1717, when more liberal regulations were adopted, which soon brought them into a very flourishing state.

Guadaloupe, discovered by Columbus, and thus named from the resemblance of its mountains to those of the same name in Spain, was first occupied by 500 French from Dieppe in 1635: but their preparations having been badly made, in two months after their arrival they found themselves totally destitute of provisions; while the Caribbs of the island, unable or unwilling to supply them,

retired to the mountains, or fled to the neighbouring islands, from whence they sallied forth and committed depredations on the colonists, a great number of whom were also carried off by famine, and the remainder lingered out a miserable existence until 1640, when a peace was made with the Caribbs.

The incursions of the Buccaneers, as well as intestine divisions, however kept the island in a state of poverty; and, in 1700, its population was only 3,825 whites, 325 Caribbs and free people of colour, and 6,725 slaves. Its improvement was very slow until 1759, when it was captured by the English; but restored to France in 1763, in a state of much greater prosperity than when it fell into their hands. In 1794 the English again took it, but evacuted it the same year; and in 1810 it again surrendered to the British arms.

A few French families from St. Christopher's formed an establishment on MARTINIQUE in 1635, and were at first amicably received by the Caribbs; but their increasing numbers and daily encroachments, soon forced the Indians to hostilities, which finally terminated in the destruction of the greatest part of them, and the abandonment of the island by the remainder in 1658. Though more rapid in its improvement than Guadaloupe, it counted, in 1700, but 6,597 whites, 507 free people of colour, and 14,000 slaves.

After the peace of Utretcht the island becoming the entrepot of the productions of the other French islands, from whence they were shipped for France,

France, its prosperity rapidly increased, so that, in 1736, the number of slaves was 72,000. In 1756 it was taken by the English, but restored in 1763. In 1794 it was again captured by the English, but restored at the peace of Amiens; and again surrendered to the British forces in 1810.

A small party of English first occupied St. Lucie, in 1639; and the island being uninhabited, continued undisturbed for eighteen months, when an English vessel having carried off some Caribbs from Dominica, the natives of that island united with those of St. Vincent and Martinique, and falling on the defenceless colonists of St. Lucie, massacred all those they encountered, a few only escaping from the island, which remained unoccupied till 1650; when forty French families settled on it, but had little improved it, when, in 1664, it was taken by the English, who however abandoned it two years after, and the French returned, but were again driven out by their rivals in 1684.

From this period the island was only visited by the inhabitants of Martinique to cut wood and build canoes, until after the peace of Utretcht, when the French monarch granted it to the Marshal d'Estrées, who sent out some colonists and troops. The British government, however, now claimed the island by right of prior occupancy; while the French founded their claim on long continued possession: the latter, however, directed the island to be put in the same state as previous to the grant. The English continuing their

claim, in 1722 the king granted the island to the Duke of Montague, who sent out persons to take possession; but the French remonstrating in their turn, it was agreed, in 1731, that until a final arrangement could take place, the island should be evacuated by both nations, but that both should have liberty to visit it for wood and water. This convention did not, however, hinder the French from occupying it in 1744; to which England made no opposition. In 1762 the island was taken by the English, but restored the following year; again taken in 1778, but restored in 1783; in 1794 it again was taken by the English, but retaken by the French the next year; and the year following (1796) it again surrendered to the English, was restored to France by the treaty of Amiens, but again taken in 1803.

DESEADA, or DESIRADA, discovered and thus named by Columbus, was first occupied by the French, but in what year is unknown. This nation also first occupied MARIEGALANTE (thus named after his ship by Columbus) in 1648, and obliged the Caribbs to quit it. It has several times been taken by the English, but restored on peace.

The Saints were first occupied by the French in 1648.

DUTCH ISLANDS.

The possessions of Holland in the West Indian archipelago, though of very little consideration as agricultural

agricultural colonies, were, from peculiar circumstances already noticed, of the greatest commercial consequence to the United Provinces.*

CURAÇOA was taken by the Dutch from the Spaniards in 1634.

ST. EUSTATIA was first occupied by some French refugees from St. Christopher's in 1629, but was abandoned by them shortly after. The precise period of its occupation by the Dutch is unknown, but they were in possession of it in 1639, when the English drove them out, but who in their turn gave way to the French, by whom the island was restored to Holland.

The little island of SABA received a Dutch colony from St. Eustatia.

The Dutch also possessed (conjointly with the French) the Island of ST. MARTIN, on which they both first landed in 1638, but were dispossessed by the Spaniards, who abandoning the island in 1648, it was re-occupied by the Dutch and French.

DANISH ISLANDS.

The Danish West India Islands are ST. THOMAS, ST. JOHN and ST. CROIX.

ST. THOMAS was first occupied by the Danes in 1671, and being one of the rendezvous of the Buccaneers, it rapidly improved by the sale of their plunder; and afterwards, being declared a free port,

* Vol. I. page 446.

port, it shared with the Dutch Islands in the profit of the transit trade.

St. John's was first settled by the Danes in 1721; and, in 1733, the Danish West India Company purchased St. Croix from the French for 160,000 rix-dollars. This latter island had been taken from the Spaniards by the French in 1651, but was almost entirely neglected.

The Danes, conjointly with the English, have the liberty of cutting wood on the Isle of Crabs, claimed by the Spaniards as an appendage to Porto Rico.

The only possession of Sweden in the West Indies is the Island of St. Bartholemew, ceded to it by France in 1786.

BAHAMA ISLANDS.

We shall commence our topographical notice of the West India Islands with the Bahamas, which naturally attach themselves to the American continent by the neighbouring peninsula of Florida, from which they are separated by the Gulf of Florida, also called the Bahama Channel. These islands are scattered over two coral and sandy banks, named the Great and Little Bahama Banks, besides others beyond the limits of these banks, out of soundings in the Atlantic. Their direction is like almost all the coral-formed archipelagos, from N.W. to S.E., extending from the Square Handkerchief Shoal on the S.E. to the Maranilla Keys on

on the N.W., or between the latitudes of 21° and 28° N. This position renders their climate temperate, the northern ones being refreshed in winter by cool breezes from the N.W. and W. out of the Gulf of Mexico, while the southern ones enjoy the constant trade wind of the Atlantic. At New Providence the extremes of the thermometer are 90° and 60°. Bahamas

The whole of the Bahamas are low, flat, and covered with broken porous rocks; the soil generally light and sandy, but producing abundance of small trees,* and with spots of good soil, fit for the cultivation of cotton and rearing of cattle. They are very scantily supplied with fresh water, and only by pools formed in the rains, or from wells dug in the sand, into which the sea water filters. The wild hog and *agouti* are found in the woods.

The commercial objects are cotton, pimento and salt, the latter chiefly taken off by the Americans of the United States. The official value of the imports from these islands to England, and of the exports to them, was;

	Imports.	Exports.
1809	£133,515	£504,567
1810	108,485	481,372

The exported productions of the islands were,

	Cotton.	Pimento.
1809	1,139,793 lbs.	1,528 lbs.
1810	1,343,828	2,22[illegible]

Considerable

* Mahogany, braziletto, lignum vitæ, fustic, wild cinnamon, pimento, yellow saunders, satin wood, pines, cedars, &c.

Bahamas. Considerable quantities of sugar and coffee, the produce of the foreign colonies, were also imported through the Bahamas into England. The islands have four legal ports of entry, viz. New Providence, Exuma, Caicos, and Turks Islands.

The small Bahama craft are employed *drogging* (carrying) between the islands, in catching turtle and fish, which are extremely abundant, and in looking out in the Gulf of Florida for wrecks, for which purpose they are licensed by the governor of the Bahamas, and a salvage is allowed them. By their exertions many lives and much property are saved in this dangerous channel.

The total population of the islands in 1803 was 2,923 whites, and 11,395 free people of colour and slaves. The expense of the civil government in 1814 was £3,300.

The islands worthy a particular mention are the following: Abaco, one of the largest and northernmost; now uninhabited, it having been abandoned by the few settlers it possessed since 1788. The Great Bahama Island, also on the little bank west of Abaco, is of considerable size, but uninhabited. Andros, or Holy Ghost Islands, a great semicircular group, extending forty leagues, at the north extremity of the great bank. In the interior of the Great Andros is a pond of fresh water, communicating with the sea by a boat channel. The island has few, if any, inhabitants, the reefs that surround it rendering the access difficult.

Eleuthera Island, one of the largest, is of very irregular shape, forming a crescent, the concavity

to

to the west; it is on the east edge of the great bank, its eastern shore being washed by the blue and fathomless ocean, while on the west is the white shallow and smooth water of the bank. The force of the Atlantic waves has pierced a magnificent arch through the rock of the island, which is the greatest curiosity of the archipelago. On the west side are the settlements of Wreck Sound, containing a few whites and 400 negroes; and Governor's Harbour: at the N.W. extremity is Spanish Wells, with 120 inhabitants. Harbour Island is close to the north end of Eleuthera, and has a settlement of 500 whites and 300 slaves, in a village beautifully situated on the south side of the island facing Eleuthera, and which is esteemed the most healthy spot of the West-Indies.

New Providence Island, nearly in the centre of the great bank, is twenty-five miles long and nine broad. The harbour of Nassau is on the north side of the island and is sheltered on the north by Hog Island: it is fit for vessels of thirteen feet. The town of Nassau is the seat of government of the Bahamas, and one of the best laid out towns of the West-Indies, the streets being wide and airy, and the houses well built. The trade of Nassau is very considerable, one hundred English, and an equal number of Americans and Spaniards of Cuba visiting it annually. The English with lumber from British America and British manufactures from Europe; the Americans with lumber and provisions; and the Spaniards with dollars. The first take off the cotton and dye woods of the island,

Bahamas. island, and the Spanish money; the second salt and wreck goods; and the third British manufactures.

The population of New Providence, in 1803, was 1,758 whites, 817 free people of colour, and 2,515 slaves.

Exuma, great and little, on the great bank, in 1803 had 140 whites and 1000 blacks; they have a port of entry, and make much salt. Long Island, or Yuma, at the S.E. extremity of the great bank, is fifty miles long but very narrow; in 1803 it had 2,500 inhabitants. On the east side is Great Harbour, from whence its salt is exported.

Guanahani is chiefly worthy of notice from the supposition of its being the first land made by Columbus, and named by him St. Salvador. By the English it is called Cat Island; it is sixty miles long, but very narrow. The east side is lined by a reef on which the whole waters of the Atlantic burst and render it inaccessible; but on the S.W. is good anchorage in Port Howe. In 1797 the island had 637 persons. Rum Key has some inhabitants. Crooked Islands are four or five on a distinct reef or bank; the largest, named Acklin's Key, is sixty miles long and one to seven broad, and North Crooked Island twenty miles long and two to six broad. On this latter is the settlement of Pitt's Town, a port of entry where the mails between London and the Bahamas are dropped and taken up. The population in 1803 was forty whites and 930 negroes.

The

The Heneaguas are two islands: the largest is forty-five miles long and nineteen broad, and has extensive salt pans, but few inhabitants, being surrounded by dangers. Bahamas.

The Caicos, *vulgo* Caucases, are four or five islands on a bank: the Great Caicos is sixty miles long and two to three broad. There are several good harbours for small vessels among the keys and reefs around them: that of St. George is a port of entry and fit for vessels of fourteen feet. In 1803, the population was forty whites and 1,200 slaves.

Turk's Islands, the southernmost of the Bahamas, lay on a detached reef; their inhabitants are principally temporary, being Bermudians who come here to collect salt, of which 7 or 8000 tons are exported annually. On Grand Key, the largest of these islands, is a port of entry.

CUBA.

Cuba, the most considerable of the West-India Islands, is 235 leagues long, east and west, and forty-five to fourteen leagues broad. It is traversed longitudinally by a chain of high mountains which give rise to 158 rivers and rivulets full of fish, but none of them navigable. The mountains are clothed with forests of mahogany, cedar, ebony, and many other trees, and have mines of gold, copper, iron, loadstone, rock crystal, &c. There are many warm and medicinal springs; and the climate

Cuba. mate is healthy, being refreshed by constant breezes. It has eleven large bays and many good ports.

Under the Spanish colonial regulations this fine island languished, but has been latterly much improved by the influx of French refugees from St. Domingo, who have not only greatly increased the population but also the staple produce of sugar, which, in 1790, was but 100,000 arobas, in 1804, 250,000, and in 1810, 800,000.—The population was in,

	Whites.	Free people of colour.	Slaves.
1774....	121,800....	5,500....	44,300
1804....	254,000....	9,000....	108,000

The trade of the Havannah with the mother country excepted, the commerce of Cuba is almost solely contraband, with Jamaica and the Bahamas, where the dollars of Mexico are given for British merchandise.

The Havannah, formerly called Port Carenas, the chief place of the island, is the entrepot between Spain and Mexico. Its port is capable of containing 1000 ships in perfect shelter; the depth generally six fathoms. The entrance is by a passage one mile and a half long, and very narrow, and three large ships have been sunk in it to render it more difficult. It is defended by the Morro Castle on the east, and by the fort of Punta on the west. The Morro is situated on an elevation, that renders it impossible to cannonade it from shipping; it consists of two bastions towards the sea and two towards the land, with a covered way

way and deep ditch cut in the rock, and can bring many guns to bear on the entrance of the harbour. Punta fort is situated on a low point, and forms a square, with casemates, and a ditch cut in the rock. The other fortifications are numerous and formidable. Cuba.

The city is on the west side of the port, and on an island, formed by two branches of the river Lagida.

The annual fleet, in peace, sails from the Havannah for Old Spain in September, and besides merchandize, it usually conveys thirty millions of piastres in coin. A packet sails from Corunna to the Havannah and Porto Rico every month.

St. Yago de Cuba, on the south coast, near the east end, was the ancient capital, and still retains that nominal honour, though since the commerce of the island has centered in the Havannah, it has been forsaken and neglected, at present containing but a few inhabitants, the proprietors of neighbouring estates. It has a good port, defended by a castle, named the Morro.

The principal bays of Cuba visited by shipping, are, Nuevitas, within Savinal Key, which is seven leagues long, and covers the bay, the entrance for large vessels being on the east. Villa del Principe is an insignificant village at the mouth of a river in this bay.

St. Juan de los Remedios is a good harbour within islands, having three channels in. Matanzas bay is full of islands, and behind it rises a great sugar-loaf hill, named the *Pan* de Matan-

Cuba. zas. St. Carlos, in this bay, is a poor place, but defended by a good castle. These three harbours are on the north coast. Batabana is a large bay on the south coast.

The principal headlands of the island are, Cape Maize, the east point; Cape Antonia, the west; Cape Vera Cruz on the south, west of which is a great gulf, filled with innumerable black rocks, so close together, that nothing larger than a long boat can pass between them. Columbus gave them the name of Jardine de la Reyna (Queen's Garden). Among the great number of other islands that surround Cuba, the Isle of Pines and the Caymans are alone of any size: the first lays off Batabana bay, at six leagues distance; it is uninhabited, but has good anchorage, and fresh water in a bay on the west. The Caymans (alligators) are three islands west of Cape Vera Cruz. The nearest being twenty-three leagues from the cape, is named Cayman-back; the little Cayman is a league and a half west of the latter, and the great Cayman fifteen leagues farther. The latter is alone inhabited, by about 150 whites, said to be descended from the Buccaneers, and who enjoy high health, these islands being very salubrious. Their chief business is fishing for turtle, to supply Port Royal in Jamaica. The island has no port, but a tolerable road on the west. There are many dangers round these islands.

ST.

ST. DOMINGO.

St. Domingo is the second of the West-India islands in size, being 160 leagues long, and twenty medium breadth. It is traversed by two great chains of mountains from east to west, whose highest elevations are 6,000 feet, and which are covered with forests of mahogany, Brazil wood, oak, walnut, gayac, maple, iron wood, pine, cedar, ebony, &c. The island has mines of gold, silver, copper, quicksilver, iron, and lead, precious stones and crystal.

The rivers are extremely numerous, but none of them are practicable even for boats in the dry season, while in the rains they often rise twenty-five feet perpendicular, and spread destruction in the plains. Eleven leagues east of Port au Prince is a salt lake, named Henriquelle, twenty-two leagues in circuit; its water is deep, clear, and bitter, and it abounds in alligators and tortoises of a large size; in it is an island, two leagues long, abounding with wild goats, and with a spring of fresh water.

St. Domingo is the most fruitful of the West India islands, affording excellent pastures, which nourish vast herds of cattle, equal in every respect to those of Europe. All the natural advantages of the island are, however, more than counterbalanced by the extreme insalubrity of the climate, particularly towards the west, arising from the great heat and moisture, and which from the

St. Domingo. earliest settlement has rendered it the grave of Europeans.

The French possessed the western part of the island, from the river Massacre on the north coast and from the river Neyva on the south. The west end of the island forms a deep gulf between two peninsulas. At the extremity of the northernmost, which is rocky and barren, are the harbour and town of St. Nicholas, the former capable of receiving the largest fleets land-locked. The town is on the south shore, at the entrance of a ravine, down which rushes a stream of water running through the town.

Leogane is a good town, surrounded by a wall with ten bastions; it is situated half a league from the sea, near a lake, which renders it very unhealthy. St. Marks also, in the western gulf, is a well built town, but being surrounded by hills and close to swamps, is one of the most deadly places of the island.

Port au Prince, at the head of the gulf, was the seat of the French government: the road for large ships is within a group named Prince's Islands, which, together with the island Gonaives, in the gulf, intercept the sea breeze from the town, and render it excessively hot, while the neighbouring mangrove swamps exhale putrid miasma.

Le Grand and le Petit Goave were two small settlements, on the south shore of the gulf, with each an excellent port.

Jeremie, on the south shore of the gulf, is situated on the side of a hill, at the mouth of a brook,

brook, and is considered one of the healthiest spots of the island. St. Domingo.

The extremity of the southern peninsula forms two points, the northern named Cape Donna Marie, and the southern Cape Tiburon (shark).

St. Louis is an inconsiderable village on the south coast, near the west end, with a harbour for ships of the line.

On the north coast the principal places of the French were Port de Paix.

Cape François, before its destruction by the Negroes, was the handsomest town of the island; it is situated on a promontory at the extremity of a plain, four miles broad to the foot of the mountains: it contained 8,000 whites. Its harbour is within several reefs, that break the force of the sea.

Fort Dauphin, or Bayalia, on Manchanel Bay, is the last place of the French, their limits being Massacre river, a little east of this port.

The places deserving notice on the Spanish part of the island are on the north coast: Spanish Town, at the mouth of the river St. Yago, much frequented by American vessels during the war, to ship the produce of the French part of the island, under cover of its being Spanish.

Port St. Yago is a regularly built town of stone and brick, on an elevation on the bank of the Yaqui. Samana bay, on the N. E. side of the island, is formed by the peninsula of Samana on the north; it has some good ports, and its entrance being narrowed by rocks, it may be easily fortified.

St. Domingo. St. Domingo, on the south coast, the chief place of the Spaniards, is built on a rocky point at the mouth of the river Ozama; the streets are at right angles, N. and S. and E. and W. and have footways of brick. The greatest part of the town is built of a marble found in the neighbourhood, and in the style of the ancient houses of Spain and Italy; the more modern houses are of clay, which acquires the hardness of stone, or of wood thatched with palm tree leaves. The ruins of a house of hewn stone, erected by Diego Columbus, the son of Christopher, are still seen; but so little veneration have the Spaniards for it, that the lower stage is used as a cow-house. The cathedral is a noble gothic building, erected between 1512 and 1540; it contained the ashes of Columbus until 1796, when they were removed. The reckoned population of the town is only 20,000, but it is probably double that number.

The fortifications are numerous and well placed, and the town is surrounded by a thick wall. The harbour is at the mouth of the river, and vessels entering must pass within hail of a fort on each side. The bay before the port is filled with reefs, on which the sea breaks furiously.

The east point of the island is Cape Engano. The islands near St. Domingo are, Tortugas, or Turtle Island, opposite Port au Paix, on the N.W. end of the island, already noticed as the grand rendezvous of the Buccaneers; it is eight leagues long and two and a half broad, with a good harbour on the south. The two Gonaives are in the gulf

gulf at the west end of the island; the largest is ten leagues long, east and west, and two broad, barren, and uninhabited. St. Domingo.

Saona island, five miles from the S.E. end of St. Domingo, is seven leagues long and four broad; the channel between it and the main is only fit for small craft.

PORTO RICO.

The form of Porto Rico is that of an oblong square, its greatest length being forty-one leagues east and west, and breadth fifteen leagues north and south. A chain of mountains runs through its whole length, with some branches diverging to the north and south, and extending to the coasts. The whole of these mountains are covered with wood, and in their intervals are fertile vallies and plains, watered by more than fifty rivers and rivulets, in whose sands gold dust is found, and four of the former are navigable two leagues from their mouth. The highest summits of the mountains are called the Peaks of Layoonita, which are often covered with snow, and are seen far at sea.

The north coast is generally lined by a coral reef under water, at a little distance from the shore. The east coast is indented with many bays, formed by the continual action of the waves. A chain of about fifty small islands, extending twelve leagues in length, lay off the N.E. coast,

Porto Rico. and serve as rendezvous for smugglers, but cannot be approached by large vessels.

The population of the island is estimated at about 136,000 individuals, composed of European and creole whites, who, taken collectively, do not exceed 15,000 of unmixed blood, 103,500 creoles of mixed blood and free people of colour, and 17,500 slaves.

The wild animals are hogs, dogs, rats, all of which were originally brought to the island by European vessels.

The productions of the island are very trifling in comparison with its extent and natural fertility, and may be estimated at 4,500 quintals of sugar, 2,000 quintals of cotton, and 20,000 quintals of coffee; the other vegetable productions are rice, Indian corn, and tobacco. A great part of the island is under pasture, and a vast number of cattle are reared to supply the English West Indies and America.

Before 1778 the commerce of Porto Rico with Spain was inconsiderable, and confined to some coffee and hides, not exceeding in value £5,000; and though to these articles have since been added sugar, cotton, gayac, and fruit, the whole amount of exports to Spain is still infinitely below what it must be if a free trade were permitted. On the contrary, the Spanish vessels are only allowed to visit St. John's, and the whole trade of the rest of the island is in the hands of foreign smugglers from Jamaica, St. Croix, and St. Thomas.

The revenue raised in the island is but £20,000 sterling,

sterling, while the expenses are £65,000, of which £58,000 for the military establishment, consisting of a regiment of regular infantry from Europe, and 2000 island militia. £100,000 is received in dollars annually from Mexico, and the surplus, after paying the deficit of the revenue, is applied to general public purposes. Porto Rico.

St. Juan de Porto Rico, the capital of the island, is situated on the north coast on the west point of an islot, joined to the main by a bridge. It contains six straight streets from north to south, intersected by six others at right angles. The houses of the first class are of stone, large and open, but wretchedly furnished. The public buildings are a cathedral and other churches, two convents of monks, one of nuns, and a general hospital. The fortifications are numerous and strong.

The harbour or road is three miles long and one and a quarter broad, and capable of containing 3 to 400 vessels; its depth is from two to seven fathoms. The channel is winding and intricate, and is buoyed off; two islots, Cabarita and Cabras, and many rocks level with the water, render it still more dangerous, and make a pilot necessary. All vessels entering are obliged to pass within gun-shot of the Morro, from whence they are hailed.

The other points of the island worthy of notice are the river Gurabo at the west end, noticed for the death of Salcedo drowned in it by the Indians in 1511, in order to discover whether or not the Spaniards were immortal.

The

Porto Rico. The Bay of Guanica, on the south coast, is an excellent port with a narrow entrance.

Near the village of Caomo, on the considerable river of the same name, and on the south coast, is a warm sulphureous spring whose temperature is 95°.

The Rio Lovisa is one of the largest rivers of the island, having fourteen leagues course, and is navigable for large boats.

The principal capes of the island are, Punta Borriquen, the N.W. point, surrounded by reefs; Cape Roxo, the S.W. point; Cape St. John, the N.E. point; Cape de Malapasqua, or St. Francis, the S.E. point.

The small islands dependant on Porto Rico are Bieque or Crab Island, five leagues from Cape Pinera, the east point of the island; it is seven leagues long and two leagues wide, and covered with wood. The English attempted to settle on this island towards the close of the seventeenth century, but were attacked by the Spaniards, who murdered all the men, and carried the women and children to Porto Rico. The Danes also attempted an establishment in 1717, and the English a second time in the same year, but they were both driven off by the Spaniards. The island has since remained uninhabited, but is frequented both by the English and Danes to cut wood.

The Tropic Keys are a cluster of small islands north of Bieque, named from the number of tropic birds that frequent them. Great Passage island, seven miles north of Bieque; off its N.E. end

end are Little Passage Island, and West Key. Serpent, or Green Island, six miles from the east side of Porto Rico, is one league long, low and covered with wood. Porto Rico.

The channel that separates Porto Rico from St. Domingo is fifteen leagues broad, nearly in the middle, and on the south are the islands Mona and Monica, or Little Mona, the channel between which and Porto Rico is called the Mona Passage: it is eight leagues wide. Mona Island is three leagues in circumference and has plenty of fresh water.

JAMAICA.

JAMAICA, the most considerable as well as by far the most valuable of the British West-India Islands, is separated from the west end of St. Domingo, by the channel called by English seamen the Windward Passage.* The island is 150 miles long and forty broad, containing 4,080,000 acres; of which,

690,000 acres are under sugar canes, and wood for the use of the sugar-works.
700,000 in pasture.
350,000 all other species of agriculture.

1,740,000, leaving upwards of two millions of acres

* The Windward Passage continues between Cuba and St. Domingo, and through the Bahamas by the Crooked Island Passage into the Atlantic. Good sailing ships only attempt this passage from Kingston, in consequence of the difficulty of beating round the east end of Jamaica. The common passage is through the gulf of Florida.

Jamaica. acres of unproductive land, of which not above a quarter is improvable, the greater part of the interior of the island being inaccessible mountain.

An elevated ridge, called the Blue Mountains, runs through the island longitudinally, and is covered with vast forests of mahogany, lignum vitæ, iron wood, log-wood, brazilletto, and many other heavy and close grained species, fit for cabinet works. On the north, at a small distance from the sea, the land rises in small round topped hills, feathered with spontaneous groves of pimento, under whose shade is a beautiful turfy carpet. This side of the island is also finely watered, every valley having its rivulet and every hill its cascade, many of which tumble from overhanging cliffs into the sea. In the back ground a vast amphitheatre of forest presents itself, melting gradually into the distant Blue Mountains, whose heads are lost in the clouds. On the south coast the picture is more sublime, but less pleasing. The mountains approaching the sea in stupendous ridges, first present to the navigator a scene of magnificent savageness; but on nearing the land the picture softens, cultivated spots being perceived on the sides of the hills, and at last the vast savannahs, covered with sugar canes, stretching from the sea to the foot of the mountains, offer the pleasing indication of human industry.

The island has upwards of a hundred rivers, rising in the mountains and running with torrent rapidity to the sea on both sides of the island.

This

This rapidity, as well as the obstructions from rocks, renders them unnavigable by any thing but canoes. The deepest is Black River on the south coast, which flows gently through a considerable tract of level country, and is navigable by flat boats thirty miles. The island has also some medicinal springs, warm, sulphureous, and chalybeate. Jamaica.

Many appearances of metals are observed in the island, but the industry of the English colonists has always been more wisely employed in the certain profits of agriculture than in the lottery of mines.

The climate of Jamaica, even on the coasts, is temperate, the medium heat at Kingston throughout the year being 80° and the least 70°. In ascending towards the mountains; the temperature quickly alters with the elevation eight miles from Kingston, the maximum is but 70°; at fourteen miles where the elevation is 4,200 feet, the general range is fifty-five to sixty-five, and the minimum in winter 44°. On the highest summit, called Blue Mountain Peak, 7431 feet above the sea, the range in the summer is from 47° at sunrise, to 58° at noon, and the minimum in winter is 42°.

Besides the staple exports of Jamaica, consisting of sugar, indigo, coffee and cotton, the cultivated vegetables are maize, Guinea corn, and calavances, for the food of the negroes; and almost all the kitchen vegetables of Europe, besides many indigenous ones, as the sweet potatoe, yam, eddoe root, callaloo (a kind of spinach, and the commonest substitute for *greens*), cassava, okery, &c.

Few

Few of the northern European fruits thrive, but the indigenous ones are numerous and delicious; the principal are, the plantain, cocoa-nut, guava, sour-sop, sweet-sop, papaw, custard apple, mammee apple, avocado pear, star apple, cashew apple, granadilla, prickly pear, pine apple, &c. The orange, lime, lemon, mango, and grape have been naturalized, as well as the cinnamon tree, of which there are now considerable plantations. The horned cattle, sheep and hogs of the island are abundant and their flesh excellent.

Progressive population of Jamaica:

	Whites.	Free people of colour.	Slaves.
1658....	4,500.....	..00.....	1,400
1670....	7,500.....	00.....	8,000
1734....	7,644.....	00.....	86,146
1746....	10,000.....	00.....	112,428
1768....	17,947.....	..00.....	176,914
1775....	18,500.....	3,700.....	190,914
1787....	30,000.....	10,000.....	250,000
1805....	—	—	280,000

The official value of the imports from Jamaica into England, and exports to the island:

	Imports.	Exports.
1809.....	£4,068,897	£3,033,234
1810.....	4,306,337	2,303,179

The principal objects of export from the island were,

	Coffee. cwt.	Sugar. cwt.	Rum. gulls.	Pimento. lbs.	Cotton. lbs.
1809..	214,415..	1,104,612..	3,470,250..	2,219,367..	1,886,748
1810..	252,808..	1,611,422..	3,428,452..	2,372,964..	1,798,172

In

In 1807, when the exports were somewhat inferior to the above years, the number of vessels that cleared out from the island was, Jamaica.

	Vessels.	Tonnage.	Seamen.
For Great Britain	242..	63,471..	7,748
For Ireland	10..	1,231..	91
For British America	66..	6,133..	449
For the United States	133..	13,041..	493
For the Foreign West Indies	22..	1,903..	155
For Africa	1..	109..	8
Total	474..	85,888..	9,344

The revenue of the island is about £125,000, by a capitation tax on the free people, a tax on negroes, and a duty on rum.

Jamaica is divided into three counties, *viz.*

Middlesex	8 parishes..	1 town...	13 villages.
Surrey	7	2	8 .....
Cornwall	5	3	6 .....

The capital of the island is St. Jago de la Vega, or Spanish Town, on the River Cobre, six miles from the south coast, and in the county of Middlesex. It contains about 5,000 inhabitants, and is the residence of the governor, whose palace is a magnificent building.

The two towns of the county of Surrey are Kingston and Port Royal. The latter is situated on a narrow sandy peninsula that separates Port Royal Bay from Kingston Harbour. In 1692 the town contained 2,000 houses, when an earthquake swallowed nine-tenths of it, covering the houses with seven

Jamaica. seven fathoms water. It was immediately rebuilt, but ten years after was destroyed by fire; and being again rebuilt, was a third time destroyed by a hurricane in 1722. This succession of calamities caused the inhabitants to remove to Kingston, on the west side of the harbour, five miles from Port Royal; and here the chief government offices have been built, but the royal naval arsenal, for careening and refitting ships, is at Port Royal.

The town of Kingston contains about 1,700 well built houses: the harbour can hold 1,000 ships, and those of 200 lay at the quays. Both the harbour and bay are protected by strong fortifications, which place them beyond all possible insult from an enemy.

The towns of the county of Cornwall are, Savannah le Mar, which being destroyed by the hurricane of 1780, now contains but sixty to seventy houses: it is at the S.W. end of the island. Montego Bay Town, on the north coast, contains 225 houses: seventy large ships and eighty lesser vessels load here annually. Falmouth, the third town, is also on the north coast, on the south side of Martha Brea Harbour; including the villages of Martha Brea and the Rock the number of houses is 250. Thirty large ships, besides small vessels, load here for England.

The villages of Jamaica are generally small hamlets on the bays, where the produce is shipped in the *droggers* to be conveyed to the ports of clearance.

The few other places worthy of mention are

Lucea

Lucea Harbour, on the north coast; Blue-fields Bay, on the south coast, three leagues east of Savannah le Mar, the usual rendezvous of the homeward bound convoys; and Carlisle Bay, also on the south coast. Jamaica.

The chief headlands of the island are Point Morant, more generally known to seamen by the name of the East End of Jamaica, and famous among them for its thunder and lightning squalls. Negril by North, and Negril by South, are two promontories at the west end of the island.

The islands deserving mention near Jamaica are the Pedea Keys and Portland Rock, on a large bank south of the island, and Morant Keys, eight leagues S.E. of Morant Point.

VIRGIN ISLANDS.

The VIRGIN ISLANDS are a group consisting of six principal islands, and numerous islets and rocks, laying between Porto Rico and the Leeward Caribbees. Their name was given to them by the Spaniards from the 11,000 virgins of the legend in the Romish ritual. They are divided between the English, Spaniards and Danes.

ST. THOMAS, the N.W. of the Virgin Islands, is ten miles long east and west, and five miles broad. It is traversed by a chain of hills running through it from east to west, with branches diverging to the north and south. The destruction of the woods, which entirely covered these hills, has

West Indies. dried up all the running streams, so that the island is at times badly watered, and often subject to extreme drought, and the town depends on rain-water preserved in cisterns.

The island has forty sugar and thirty-four cotton plantations, which give an annual produce of 1,400 hogsheads of sugar, 450 hogsheads of rum, and 60,000 to 70,000 pounds of cotton; besides it rears a considerable number of cattle.

The population of the island in 1797 was 726 whites, 239 free people of colour, and 4,769 slaves. The whites are composed of Danes, English, French, Dutch, Germans and Jews, who have all their respective places of worship.

The town is on the south east side, forming one long street of 300 to 400 indifferently built houses. The harbour is secure from the hurricanes, and capable of holding 150 sail; it is protected by St. Christopher's Fort and several batteries on eminences. The military force is usually 100 European troops of the line, and 360 colonial militia.

The other anchorages of the island, on the south side, are Jerve Bay, east of the town; Grigri and Musquitto Bay, west of the town. On the west side, proceeding from the south, are Bush, Bourdeaux and Tallard Bay; on the north west, Carets Bay; on the north east, East End Bay.

The islands dependant on St. Thomas are Green Island, on the N.E.; Bras Island, on the north; Great and Little St. James, on the east; Buck Island, Water Island, Little Saba, Flat Island, Savannah

Vaimah or Green Island, Birds Keys, and the Hoyor Carvel of St. Thomas, a high two-headed rock, on the south. Virgin Islands.

St. John's, the next considerable island, south east of St. Thomas, from which it is separated by St. James Passage, is thirteen miles long and six broad.

This island has twenty-two sugar works, forty-four cotton plantations, producing 800 hogsheads of sugar, 800 hogsheads of rum, 8,500 pounds of cotton, and some coffee; it besides rears cattle. Its population has decreased since 1775.

	1775.	1789.	1797.
Whites	110	167	103
Free people of colour	0	20	15
Slaves	2,324	2,200	1,922
	2,434	2,387	2,040

The chief place of the island is the castle, on the south east, on a promontory forming two fine coves, which are defended by a fort on the north point of the entrance, and another on Duck Island close to the south point.

The small islands dependant on St. John's are Lavango and the Corn Islands, on the north west, between it and St. Thomas, and Witch Island, the western of the chain of islands and rocks enclosing Sir Francis Drake's Bay, on the south. Birds Key, Round Island, or Frenchman's Key, a high rock, four miles and a half south of the south point of St. John's, are also in its dependance.

Virgin Islands.

TORTOLA is north east of St. John's, and separated from it by the King's Channel. It is twelve miles long and four broad. It is badly watered, and considered unhealthy, but is fruitful.

Its population was,

	Whites.	Free people of colour.	Slaves.
1789. .	1,200	180	9,000
1805	1,300	220	9,000

The official value of its imports and exports were,

	Imports.	Exports.
1809	£33,399	£52,000
1810	61,520	6,612

The principal exports from the island were,

	Sugar. cwt.	Rum. galls.	Cotton. lbs.
1809	9,257	16,862	158,167
1810	31,562	7,711	250,797

The town is on the south east, at the head of the only good road in the island, which is called the Bay. In 1802 it was declared a free port.

The small islands dependant on Tortola are the Thatch Islands and Frenchman's Key, between it and St. John's; Jost Van Dyke's and Little Vandyke's Islands, on the N.W.; Guana Island and Beef Island, on the N.E.

VIRGIN GORDA, also called Spanish Town, is east of Tortola, from which it is separated by Sir Francis Drake's Channel. It is eighteen miles long, and of very irregular shape, indented by deep bays, forming two peninsulas.

The

The lesser islands subject to Virgin Gorda are on the west, between it and Tortola, Commandls, Scrubb, Dogs Island and Keys; on the north, Musquitto, Nicker, Prickly Pear; on the south west, the Fallen City or Old Jerusalem,* Ginger Island, Cooper's Island, Salt Island, Deadman's Chest, Peter's Island, Normand's Island, and the English Keys. Virgin Islands.

The clear space between St. John's on the west, Tortola on the north, Virgin Gorda and the Fallen City on the east, and Normand's, St. Peter's, Salt, and Cooper's Island on the south, is named Sir Francis Drake's Bay. It forms an excellant anchorage, completely landlocked, with from ten to twenty-five fathoms.

Anegada, or the Drowned Island, is north of Virgin Gorda and dependant on it. It is almost entirely covered by the sea at high tides, and produces only the mangrove. It is also entirely surrounded by a dangerous reef, except at its west extremity, named Freebooter's Point, from its being formerly the rendezvous of the Buccaneers.

Santa Cruz, or St. Croix, is the southernmost of the Virgin Islands, being four leagues and a half south of St. John's. It is six leagues long, and two and a half broad; containing 51,900 square acres. In general it is level, and indifferently watered by fifteen very small rivulets, which are dry a part of

* A chain of broken islets and rocks, extending south from the west point of Virgin Gorda: they are covered with stones that scarce require any dressing to be employed in building.

Virgin Islands. the year. It has no timber, but is fruitful, and almost entirely cultivated. It is divided into eight quarters, and has 345 plantations, of which 150 are under sugar-cane, and the remainder under cotton. The annual produce is estimated at about fourteen millions of pounds of sugar, one million of gallons of rum, and 12,600 pounds of cotton. Coffee, indigo and cotton do not thrive in consequence of the dryness of the soil, but a considerable quantity of cattle are reared.

St. Croix was taken from the Spaniards by the French in 1651, but again almost deserted by them for St. Domingo in 1699. In 1733 Denmark purchased it from France for 160,000 rix-dollars.

The population is increasing:

	1775.	1789.	1797.
Whites	2,271	1,952	2,233
Free people of colour	155	953	1,664
Slaves	22,244	22,472	25,452
	24,670	25,377	29,349

The revenues amount to about 280,000 rix-dollars, of which the expenses consume two-thirds. Besides 200 troops of the line the island can raise about 400 colonial militia.

Christianstadt, the chief place, is on the west side of the island, contains 5,000 inhabitants. The harbour is of difficult access, and shoal in several places; it is defended by the fort of Frederica Sophia, on an islet north of the town, and Louisa Augusta, on a neck of land; under the guns of both

both of which vessels must pass to the anchorage. The garrison does not exceed 100 men.

Frederickstadt, on the S.W., has 1,500 inhabitants, a fort, and one hundred soldiers. Its road is open, and seldom visited by foreign vessels. Besides these places, the island has fifteen bays affording anchorage.

LEEWARD CARIBBEES.

Sombrero, or Hat Island, the north western of the Leeward Caribbees, is three leagues in circuit, low, flat, and uninhabited, and covered chiefly with mangrove. Its shores are so bold, as to be approachable by a ship within a cable's length.

Anguilla, or Snake Island, is six leagues long and two broad, low and level, and inhabited by a few families, whose chief employments are rearing cattle and collecting salt. It has a tolerable road on the lee side. From its N.E. point a reef runs out five leagues, joining Prickly Pear Island, besides which other islets lay round Anguilla.

St. Martin is five leagues long, east and west, and three broad. Though the soil is stony, light, and badly watered, it is tolerably fertile, producing the best tobacco of the Caribbees: in its woods is the candle tree, whose splinters lighted give a fragrant smell, and several trees affording gums. The north side was occupied by the French and the south by the Dutch; the former, about thirty years since, were 400 white families

Leeward Caribbees.

and 10,000 slaves; the Dutch only sixty families and 200 slaves. The chief place of the latter is on the N.W. side, and is named *the Harbour*; it is defended by a small fort.

On the S.E. side are three salt ponds, affording a considerable quantity of this object for commerce. The small islands attached to St. Martin are, Middleburg Key, close to the north point, and the four Mangrove Keys on the East.

St. Bartholomew is five leagues long, E.S.E. and W.N.W. and two broad; it has no water but from the rains, abounds in lignum vitæ, iron-wood, and other trees; is surrounded by reefs, but has a good harbour. A great portion of its inhabitants are the descendants of Irish Roman Catholics.

Saba is a great rock, four leagues in circuit, without any road for ships, and with but one landing place, at a creek on the south side; it has a few families of Dutch and their slaves.

From this island a bank extends to the south twenty-three leagues, and two leagues broad, with seven to twenty fathoms; at its south extremity is Aves or Bird's Island, a high rock, frequented by sea birds.

St. Eustatia is a vast round pyramidal mountain, ten leagues in circuit, without running water; its population is 5,000 whites and 15,000 negroes.

St. Christopher, or, as it is more usually called by the English, *St. Kitts*, by the Caribbs was named *Liaminga*, or the fertile; it is nineteen miles

miles long and eight broad, containing 48,726 acres of land. The interior is composed of rugged and barren mountains, the highest, named Mount Misery, being an extinct volcano; with a great crater, whose bottom is a level of fifty acres, of which seven are covered with a lake and the rest with grass and trees, amongst which latter is the mountain cabbage. Streams of hot water, impregnated with sulphur, issue from the fissures in the crater. Leonard Caribbee.

The soil in the vallies is extremely fertile, being a decomposed pumice-stone mixed with pure loam over a stratum of gravel, nor is clay found, except at considerable height on the mountains.

The island is divided into nine parishes, containing four towns and villages. Basse Terre, the chief place, is on the west side of the island, and contains 800 houses. The other places are, Sandy-Point Town, at the N.W. point of the island, the second port of entry; Old road; and Deep or Dieppe bay.

The population of the island was,

	Whites.	Free people of colour.	Slaves.
1787....	1,912	1,908	20,435
1805....	1,800	198	26,000

The value of the imports from the island and exports to it,

	Imports.	Exports.
1809.....	£266,064.....	£132,845
1810.....	253,611.....	89,362

The

Leeward Islands. The principal imports were,

	Coffee. cwt.	Sugar. cwt.	Rum. galls.	Cotton. lbs.
1809	433	166,053	343,075	112,327
1810	136	167,943	220,886	26,853

Nevis is separated from the S.E. end of St. Kitts by a strait, called the Narrows, three miles broad. It is a great mountain, eight miles long and five broad, with a border of low land a mile and a half in breadth, well watered and fertile. In the centre of the summit of the mountain is an ancient crater, and sulphur is frequently found in the fissures of the soil.

The island forms five parishes: the only town is Charlotte, at the S.W. end, but it has two other shipping places, at Indian Castle and New Castle. The population was,

	Whites.	Free people of colour.	Slaves.
1787	1,514	140	8,420
1805	1,300	150	8,000

The imports to England and exports from thence were,

	Imports.	Exports.
1809	£89,062	£20,500
1810	126,443	11,764

The principal imports from the island were,

	Coffee. cwt.	Sugar. cwt.	Rum. galls.	Cotton. lbs.
1809	—	68,720	52,478	17,463
1810	18	87,392	67,010	11,160

The island has no European regular troops, but

but the white inhabitants form an organized militia. Leeward Caribbees.

Barbuda, four leagues and a half long and two broad: it is the property of the Codrington family, who possess on it about 1,500 negroes, under the superintendance of two or three whites, to breed sheep and raise vegetables for the other islands.

Antigua is nearly round, and about twenty leagues in circuit: it is flat, and totally without either stream or spring, the inhabitants depending entirely on the rain water preserved in cisterns. The island contains six parishes, with each its town or village. St. John's, the chief place on the S.W. is the usual residence of the governor of the Leeward Islands; it is situated at the head of a long and narrow harbour, whose entrance is crossed by a bar, with only fourteen feet. The other towns are, Parham, on the north, Falmouth, Willoughby on the south, and James Fort; the two first are ports of entry. At English Harbour, on the south, is a royal naval depot, where ships of war careen.

The population, in 1774, was 2,890 whites and 37,808 slaves; in 1800 the latter had increased to 60,000.

The imports from the island to England, and the exports from the latter, were,

	Imports.	Exports.
1809.....	£198,121	£216,000
1810.....	285,458	182,392

The

Leonard Caribbees.

The principal imports were,

	Coffee. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809	309	106,150	143,223	112,016
1810	40	188,799	77,092	39,880

The military establishment of the island is two regiments of regular infantry, and two of island militia.

There are many rocky islets round Antigua, of which no use is made. The Redondo is a great rock, three leagues in circuit, steep to and with good landing, but uninhabited: some banks north and west of it abound in fish.

MONTSERRAT is three leagues long and two broad, containing 30,000 acres, of which two thirds are mountainous and barren, the remainder is under sugar, cotton, and pasture. The town is on the S.W. side, and it has also three roads for ships, Plymouth, Old Harbour, and Kers Bay.

The population was,

	Whites.	Free people of colour.	Slaves.
1787	1,300	260	10,000
1805	1,000	250	9,500

The official value of the imports from the island into England, and exports to the island, were,

	Imports.	Exports.
1809	£35,407	£10,460
1810	62,462	16,816

The principal imports of the island produce were,

Sugar.

	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809....	21,917....	51,182....	29,455
1810....	41,112....	48,880....	48,313

GUADALOUPE is properly two islands separated by a small strait or arm of the sea, called the Salt River, two leagues long and only fifteen to forty fathoms wide, vessels of forty to fifty tons can pass through it, and the inhabitants cross it in a ferry boat.

The westernmost island is eleven leagues long north and south, and six leagues broad. It has mountains of such elevation that the cold is considerable on their summits: many of them are extinct volcanoes, and among them in the middle region, is a track called the *Souffriere*, or *Solfaterra*, which emits smoke. This division of the island has not less than fifty rivers, which empty themselves into the sea, and innumerable rivulets descending from the mountains and fertilizing the vallies. The west side of the island is named Basse Terre, and the East Cabes Terre.

The second island lies to the N.E. of the first, and is named Grand Terre, it is twelve leagues long, W.N.W. and E.S.E., and four leagues broad; it has not a single running stream, the inhabitants depending on their cisterns for water saved in the rains, and the cattle on the swamps.

The population was,—

Whites

Leeward Caribbees.

	1779.	1788.
Whites	13,261	13,466
Free people of colour	1,382	3,044
Slaves	85,327	85,461
	99,970	101,971

The sugar of this island is considered inferior to that of Martinique, but its coffee superior to that of St. Domingo.

The exports in 1788, including the produce of Mariegalante, the Saintes, and Deseada, were to France,—

	Quintals.	Francs.
Raw sugar	11,194	480,000
Clayed	64,366	3,715,000
Head	76,511	3,154,000
Coffee	37,300	4,103,000
Cotton	7,411	1,482,000
Indigo	7	6,000
Sundries	—	133,000
Exported by foreigners	—	1,599,000
Value of imports from France		5,362,000
By foreigners		3,424,000
		8,786,000

The chief place of the S.W. island is Basse Terre on the lee side.

The principal place of the N.E. island or *Grand Terre*, is Port à Pitre on the S.W.

There are some insignificant islets round Guadaloupe;

daloupe; the most considerable are two named *Petit Terre*, S.E. of the east point of the *Grand Terre*. Leeward Caribbees.

Deseada, two leagues distant from the east point of Guadaloupe, is four leagues long and two broad, with a sandy soil, producing only a little coffee and cotton. In 1788 it contained 218 whites, thirty-three people of colour, and 619 slaves.

The Saintes are six rocky islets, three leagues south east of the south point of Basse Terre (Guadaloupe.) The N.E. is called the Upper Saint, and is four miles in circumference. The S.W. or Lower Saint, is three miles in circumference, and has two good landing-places at creeks, and a village with a neat church. Between these two is a third, a great rock.

They form among them a secure harbour, but with little depth. They are subject to Guadaloupe, and were inhabited in 1788 by 419 whites, twenty free people of colour, and 865 slaves. Their produce is just sufficient cotton and coffee to enable the inhabitants to support themselves.

Mariegalante is four leagues long, north and south, and three leagues broad; though it has several rivulets and ponds, they sometimes dry and leave it without water. The east side is lined by rocks, which are resorted to by innumerable tropic birds. The west coast is level and clean.

The population in 1788 was 1,938 whites, 226 free people of colour, and 10,121 slaves.

It

Leeward Caribbees.

It produces about 1000 hogsheads of sugar, and a considerable quantity of tobacco.

In 1788, Mariegalante and the French part of St. Martin's exported to France,—

Sugar	4,784,000 lbs.
Coffee	636,000
Cotton	230,000
Cocao	55,000
Indigo	30,000

Besides considerable quantities of all these articles taken off by foreigners.

The principal place is Santa Anna.

DOMINICA is twenty-nine miles long and thirteen broad, containing 186,436 acres, of which however a considerable portion is high and rugged hills, and the soil of the vallies being generally light and stony, is more calculated to the raising coffee than sugar. Several of the mountains are unextinguished volcanoes, which frequently discharge burning sulphur, and from which issue hot springs; the island has thirty rivers, and a great number of rivulets. In the mountain woods are innumerable swarms of bees, which lodge in the trees, and produce great quantities of honey and wax; these insects are of the European species, and must have been transported to the island, the native West-Indian bee being of a much smaller species, without sting, and different in its manners.

The island is divided into ten parishes, Charlotte Town, Roseau of the French, the chief place

place is on a point of land between two bays on the S.W. side of the island. It has 500 houses. Portsmouth, or Prince Rupert's bay, on the N.W. side of the island, is the only other town.

The population was as follows,—

	Whites.	Free people of colour.	Slaves.
1787	1,236	445	14,967
1805	1,594	2,822	22,083

The imports from the island to England, and the exports from the latter were,

	Imports.	Exports.
1809	£315,584	£161,291
1810	282,002	99,686

The principal imports were,

	Coffee. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809	3,254	41,990	56,356	75,425
1810	27,185	61,522	39,397	59,742

The position of Dominica renders it of great consequence to England in war with France, for a squadron stationed at Prince Rupert's Bay may effectually cut off the communication between Martinique and Guadaloupe.

WINDWARD CARIBBEES.

MARTINIQUE, or MARTINICO, is thirty-six miles long, and seventeen broad. The south coast presents high and steep mountains, without wood. Irregular ramifications of these mountains cross the general chain, and projecting into the sea, form bays, called by the French *Culs de Sac.*

The north and south-east sides are lined with

Windward Caribbees.

rocky islets; but the south-west is clean. It has 40 rivers, some of which are navigable a good way, and never run dry; but, on the contrary, in the rainy season, often overflow, and do considerable damage.

A few families of Caribbs still exist on this island, but seclude themselves in the woods, having little communication with the whites or negroes.

The population was,

	1779.	1788.
Whites	11,619	10,603
Free people of colour	2,892	4,851
Slaves.....	71,268	73,416
	85,775	88,871

The coffee of this island is considered the best of the West India growth, being the produce of plants originally introduced from Arabia in 1726. The sugar is inferior to that of St. Domingo.

The exports to France in 1788 were

	Quintals.	Francs.
Raw sugar.....	18,795	686,000
Clayed	137,945	8,027,000
Head.....	119,453	3,049,000
Coffee.....	68,161	8,315,000
Cotton.....	11,550	2,355,000
Indigo.....	10	10,000
Sundries.....		675,000
Produce taken off by foreigners		7,717,000
The imports from France were..		15,138,000
By foreigners.		9,198,000

Fort

Fort Royal, the chief place, is on the middle of the west side, on a narrow neck of land, projecting out from the bottom of a deep bay. Windward Caribbees.

This neck, which bends round in the form of a man's arm, together with another, called Monk's Island, forms a safe harbour, the entrance of which is protected by forts on each point, whose fires cross. The harbour is also commanded by Fort Bourbon, on a hill, behind the town. The situation is unhealthy, being surrounded by marshes.

St. Pierre, seven leagues N.W. of Port Royal, is the second place of the island: its road is open, and consequently unsafe in the hurricane months; and besides ships are obliged to anchor a considerable distance from the town. The latter is built on a narrow strip of low land, which forms the beach; the hills rising so close behind it, as nearly to overhang the houses. It contains three streets, parallel to the beach, and some transverse ones; but these latter are so steep as not to admit carriages. The hills are furrowed by deep ravines, through which descend little torrents, the waters of which are conducted through the streets, and both keep them clean and refresh the atmosphere, which would otherwise be intensely hot, from the sea breeze being interrupted by the hills. The houses are plain, built of stone, and with one or two stories. The population is about 30,000.

Trinity Bay, on the west side of the island, has safe anchorage in the hurricane months. It has a flourishing town.

Windward Caribbees.

Robert's Bay, on the east, is a good port, formed by two islands.

Off the N.W. point is a large rock, called the Pearl; and off the S.W. $\frac{3}{4}$ mile, another, called the Diamond (Devil Island, or Isle de Barque of the French), which has the shape of a sugar-loaf, with the top broken off, and has only a boat's passage between it and the main. This rock is 600 feet high, and one mile in circumference. The south, south-west, and east sides are inaccessible, rising perpendicularly from the sea; and the west side, where is the only landing, is lined by breakers. It was taken possession of by the English in 1804, while blockading Martinique; and, with immense labour, three batteries, mounting twenty-four pounders, were constructed on it, to command the whole bay.

ST. LUCIE, or St. Lucia, is eight leagues long and four leagues broad. The interior is very mountainous, two points of which are called the pin heads. The island in general is fertile and well watered.

The population was

	1777.	1788.
Whites	2,300	2,159
Free people of colour	1,050	1,588
Slaves	16,000	17,221
	19,350	20,968

The exports in 1787 were, to France

	Quintals.
Raw sugar	16,660

Clayed

	Quintals.
Clayed.....	33,340
Coffee.....	15,600
Cotton.....	2,000
Cacao.....	953
Indigo.....	250

Total value four millions of francs, besides sundry small productions, and what was smuggled out of the island.

Le Carenage, the chief place of the island, is about the middle of the west side. Nature has here formed a spacious and secure harbour, in which thirty sail of the line may lay in perfect safety during the hurricane months, and the largest ships may heave down by the shore. The entrance is so narrow, that but one ship can enter at a time, and the wind blowing constantly out, she must be towed or warped in.

St. Vincent is twenty-three miles long, and eighteen broad, containing 84,000 acres, of which nearly one half consist of mountains incapable of improvement. The island is sufficiently watered by twenty small rivers, turning sugar-mills.

The island is divided into five parishes, with one town, named Kingston, on the S.W., and three insignificant villages. The population, in 1787, was 1450 whites and 11,853 negroes. In the same year the exports of the island sold for £186,450 in England. They were composed of coffee 634 cwt., cotton 761,880 lbs., sugar 65,000 cwt., rum 88,000 gallons, and cocoa 148 cwt.

The peace establishment of the island is a regi-

Windward Caribbees.

ment of regular infantry, and a company of artillery, besides a Negro corps, raised in the island, and a militia of two regiments, serving without pay. The governor's salary is £2,000.

GRENADA is twenty-seven miles long and fifteen broad: its surface is broken and hilly; but it is generally fertile, and has twenty-six rivers, emptying themselves into the sea, all capable of turning sugar mills; besides many rivulets, issuing from a lake on the summit of a hill.

The population of this island, including the Grenadines under its jurisdiction, was

Years.	Whites.	Free People of Colour.	Slaves.
1777.....	1300.....		35,000
1787.....	996.....	1125.....	23,926
1805.....	1100.....	800.....	20,000

The official values of the imports from the island to England, and the exports from the latter, were

1809	Imports	£439,453	Exports	£189,800
1810	—	388,936	—	173,366

The principal imports were

	Coffee. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809	2892	210,037	642,310	1,155,000
1810	1193	215,262	546,825	588,362

Grenada is divided into six parishes, and has one town and several villages. The former, named George Town, Fort Royal of the French, is on a spacious bay on the west or lee side of the island, and possesses one of the best harbours of the West Indies, named the Carenage, in which ships lay land-

land-locked in deep water, close to the wharfs. The town is handsomely built of brick, and divided into two parts, by an elevated ridge running through the neck of land on which it is built; one part called the Bay Town, and the other the Carenage. On the point of the neck of land is an old stone fort, built by the first French settlers, and capable of holding a regiment. The town and port is also defended by several modern works. George Town was declared a free port in 1789. Windward Caribbees.

Grenville Bay Town is the other port of entry of the island, having a separate custom-house establishment. The villages are generally on the shipping bays round the island.

The Grenadines, or Grenadillas, are a chain of small islands and rocks between St. Vincent's and Grenada, and whose jurisdiction is divided between these islands. Those belonging to St. Vincent's are Young's Island; Bequia or Crab Island, 3700 acres, has an excellent port, named Admiralty Bay; Maillereau, Balleseau, Canneovan, 1777 acres; Musquito, 1203 acres; Maycro, Union, 2150 acres; Frigate Island, and Little Martinique.

The islands in the government of Grenada are Cariacoa, seven leagues in circuit, forming a parish, with a town, named Hillsborough; Round Island, the Diamond, and Levora. These islands are without running water. Bequia and Cariacoa afford some sugar, and the others a little cotton.

Barbadoes lies considerably to the east of the general chain of the Caribbees. Its length is only

Windward Caribbees.

twenty-one miles north and south, and its breadth fourteen miles, containing 106,470 square acres.

This island rises gradually from the sea to an elevation in the centre, which scarce deserves the name of hill. With the exception of a few ravines, it is every where capable of cultivation. The soil is a thin layer of earth covering a calcareous rock, and is so exhausted by cultivation, that it is only by force of manure that sugar (which is its chief production) is raised. This manure is principally the sea weeds thrown up on the beaches.

The island has few streams that deserve the name even of rivulets, but is watered by springs, which, however, occasionally dry up.

The population of this island has greatly decreased within the last century. In 1676, fifty years only after its receiving an English colony, it contained the extraordinary population of 50,000 whites and 100,000 slaves. Its later population has been,

	Whites.	Free people of colour.	Slaves.
1786....	16,167....	838....	62,115
1805....	15,000....	2,130....	60,000

In 1787 the produce of the island sold for half a million sterling in England. The official value of the imports from and exports to the island in

	Imports.	Exports.
1809.....	£450,000.....	£288,000
1810.....	271,000.....	311,000

The

The principal objects of import from the island were, Windward Caribbees.

	Coffee. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809....	3,471...	139,717...	19,964...	1,360,000
1810....	308...	181,440...	7,909...	1,454,000

The island is divided into eleven parishes, containing four towns, *viz.* Bridgetown, Osten's or Charlestown, St. James's, and Speight's town. Bridgetown, the capital, is at the mouth of a little rivulet that falls into Carlisle bay, on the S.W. side of the island.

Speight's town, on the N.W., is defended by three forts. Besides these towns there are villages at Consett's point, the east point of the island, and at St. Andrew's and St. Joseph's.

The salary of the governor of Barbadoes is £2,000.

Tobago is twenty-seven leagues distant from Grenada, and seventeen leagues from Trinidad. It is eleven leagues long, N.E. and S.W., and three leagues broad. Its surface is less irregular than in most of the other islands, and the acclivities less abrupt. The soil is in general light and sandy, but fertile, and sufficiently watered by springs. Nearly in the centre of the island is a hill, whose reddish black colour denotes the ancient existence of a volcano. Its vicinity to the continent secures it from the devastation of hurricanes. The climate is also more temperate than that of most of the other islands. The principal place

Windward Caribbees.

place is at Man of War's bay, on the N.E. side of the island; the best harbour in the West Indies, having depth for the largest ships close to the shore.

The population of the island was,

	1777.	1788.	1805.
Whites	400	1,400	900
Free people of colour	—	1,050	700
Slaves	8,000	10,539	14,883
	8,400	12,989	16,483

The productions in

	1777.		1788.	
	Quintals.	Francs.	Quintals.	Francs.
Sugar	20,000	800,000	20,250	754,000
Cotton	8,000	1,200,000	12,320	2,464,000
Indigo	120	96,000	45	42,000
Coffee, and sundries			159	29,000
Carried off by foreigners			—	402,000
		2,096,000		3,691,000

The official value of the imports from and exports to the island,

	Imports.	Exports.
1809	£226,824	£70,585
1810	201,169	70,787

Principal exports to England of the island produce,

	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809	130,122	525,327	48,791
1810	124,208	337,433	11,818

Little

Little Tobago Island is a great rock, two miles long and one broad, near the N.E. end of Tobago.

LEEWARD ISLANDS OF THE SPANIARDS.

The Spaniards give the name of Leeward Islands to those laying off the coast of Terra Firma, because they are left to leeward in their voyages from Europe to St. Domingo, Cuba, and Mexico.

TRINIDAD, one of the finest of the West India islands, is eighty miles long and sixty broad; it is separated from the north-east point of Terra Firma by the gulf of Paria, a beautiful basin, having good anchorage over a muddy bottom throughout. In the northern entrance are three islands, forming four channels, called the Dragon's Mouths. The western, named *Boca Grande*, is the largest, being six miles wide, but has a dangerous sunken rock in it. The second, or Ship Channel, *Boca de Navis*, is seldom used, except for egress. The third, or Egg Passage, *Boca de Huivos*, is most commonly used by ships entering the gulf from the north, but requires a strong wind to overcome the current. The fourth, next to Trinidad, is called the Monkey's Passage, *Boca de Monos*; it is only fit for small vessels, being very narrow, and having a rock in the middle, on which the sea breaks with great fury.

The southern entrance of the gulf is called the Serpent's Mouth *(Boca de Sierpe)*, and is eleven leagues

Spanish Leeward Islands.

leagues wide; in it is an island named *Soldada* by the Spaniards, and Devil's Island by the English. Vessels never attempt an egress from the gulf by this channel, the current from the Orinoco setting through it so strong as to render it impracticable.

Besides the gulf in general, which forms a vast harbour, the island Chica-Chiccana, the westernmost of those in the Dragon's Mouths, has a port fit for the largest fleets. The road of Chaguarama (*vulgo* Shagaramus), on the coast of Trinidad, is a bad anchorage, from the violence of the currents.

The gulf of Paria is so abundant in fish, that it would be possible to establish a fishery here capable of supplying the whole West India islands; it has also plenty of shell fish, particularly oysters, together with lobsters, crabs, and prawns.

The interior of the island of Trinidad is chiefly occupied by four groups of mountains, which, with some diverging branches, form a third of the island. These mountains give rise to numerous rivulets, several of which uniting, form rivers that flow to the sea, on both sides of the island; the most considerable is the Coroni, on the south, navigable for flat boats to the foot of the hills. It is remarked that all the rivers on the east side are tinged of a yellow colour.

The island contains large quarries of limestone, approaching to marble, and clays for brick and pottery. Its greatest curiosity is a lake of mineral pitch, of 150 acres, which answers every purpose

pose of vegetable pitch. The mountains are covered with forests of mahogany, cedar and other large trees fit for naval construction, besides many kinds of cabinet woods. The cinnamon, clove, and other East-India vegetables, have been introduced and promise to succeed. The woods abound in deer, wild hogs, and other animals, and among the birds is the wild turkey. The extensive savannahs pasture large herds of cattle. Spanish Leeward Islands.

Trinidad lies beyond the limit of the hurricanes, and its climate is generally considered equal in salubrity to any other of the West India islands. The rainy season is from May to October.

According to official statements the population in 1805 was, whites 2,261, free people of colour 3,275, and slaves 19,709. An attempt was made to establish a colony of Chinese in this island, but failed, as it would appear, from these people having none of their countrywomen with them, and the other races, white or black, refusing to intermarry with them; hence most of them again quitted the island.

The official value of the imports to England and exports to the island was,

	Imports.	Exports.
1809.....	£328,522.....	£577,190
1810.....	301,000.....	357,073

The principal objects exported from the island were,

	Coffee. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809....	3,696..	157,866...	208,677...	1,171,506
1810....	2,713..	166,627...	87,741..	883,384

La

Spanish Leeward Islands.

La Margaretta is distant from the main land eighteen or twenty miles; it is thirty-eight miles long and of irregular breadth, from twenty-four to seven miles. The soil is a barren sand over coral rock, little capable of cultivation, and it has no fresh water; hence its sole value is as a military post, being naturally strong and commanding the channel to the Spanish settlements on the main. The population is 5,500 whites, 2,000 Indians, and 6,500 slaves. Besides the cultivation of a little cotton, the principal industrial pursuit is the fishery between the island and main, which employs the Indians for three months of the year. The fish salted are sold on the continent, and sent to the West-Indian islands. The chief place is Assumption, nearly in the middle of the island. The three harbours are Pampator on the east, where are the chief fortifications; Puebla de la Mar, also on the east; and Puebla de la Norte on the north: at each of these ports is a village.

In the channel between Margaretta and the main are the islands Coche and Cabagua, the latter sterile and without wood or water; it had formerly a pearl fishery but which has been abandoned. The Testigos, Cola and Frayles, or Friars, are groups of rocks between Grenada and Margaretta. Blanca Island is barren and uninhabited, eleven leagues north of Margaretta; east of it are the Seven Brother Keys.

Salt Tortugas or Turtle Island, sixteen leagues west of Margaretta, is ten leagues in circumference. On the N.E. is a tolerable harbour, and on the west,

west, a good road with fresh water; it is uninhabited, but resorted to between May and August, by vessels for salt which is formed by the sun in a large natural pond on the east end. Spanish Leeward Islands.

Orchilla is north, eighteen leagues from Cape Cedera on the main. It is eight leagues long N.W. and S.E., and is formed by several low islets, separated by narrow and shoal channels, so as to appear one island. The north side is foul, but the south so bold, that a ship may lay alongside the rocks. It has no fresh water and is uninhabited. West, ten leagues from Orchilla, is Rocca, a small island with several rocks, extending east and west five leagues, and north and south three leagues. The north rock has a high white elevation on the west end. There is a stream of fresh water on its south side, but it is impregnated with some aluminous mineral.

The other rocks are all low, and none of them are inhabited.

The Aves, or Birds' islands, are seven leagues west of Rocca, and thirty-two leagues north of La Guyra on the main; they consist of two larger and three lesser islets.

Bonaire is eleven leagues long N.W. and S.E. and five to eight miles broad. It has some salt mines and pastures for cattle belonging to Curaçoa. The road is on the west within the island Little Bonaire.

Curaçoa is sixteen leagues north of Cape St. Roman in Venezuela; it is fifteen leagues long and six leagues broad, generally barren, and without

Spanish Leeward Islands.

out running water; yet the indefatigable industry of the Dutch has brought it to produce tobacco and sugar. It also affords a large quantity of salt; but its prosperity is principally derived from a contraband trade with the Spaniards, this island being heretofore the rendezvous of all nations during war.

The Dutch ships from Europe touch here for intelligence and pilots, and then proceed to the Spanish main to carry on a forced trade, which they are enabled to do, being stout ships well manned and armed, so as to bid defiance to the Guarda Costas.

There are large magazines of all the manufactures of Europe and India; and the Dutch West India, which is also the African Company, annually imported three or four cargoes of slaves.

The Spaniards come hither in small vessels and purchase the best of the negroes, together with great quantities of goods, for which they pay in gold and silver, cacao, bark, vanilla, cochineal, &c.

Fort Amsterdam, the chief place of the island, is one of the handsomest towns of the West Indies; it is situated on St. Anne's bay, which forms a road to the harbour, the entrance of which latter is only sixty fathoms wide, and strongly fortified.

Little Curaçoa is an islet off the S.E. point of the Great.

Aruba is a small uninhabited island affording only wood.

New

NEW SPAIN.

The region of North America, to which the Spaniards have given the name of NEW SPAIN, is washed by both oceans. Its political divisions on the coast of the Gulf of Mexico are Mexico* proper, extending from the limits of Louisiana to the province of Honduras; subdivided into the *Intendancies* of San Luis du Potosi, Vera Cruz, and Merida, or Yucatan.

From the limits of Louisiana to Vera Cruz there is not a single port fit for a vessel of any burden, the coast being lined by dry banks of sand, which increase annually and contract the limits of the gulf. The channels or inlets between these banks into the chain of lagoons between them and the shore, are crossed by bars with seldom more than a foot to eighteen inches water. Numerous rivers empty themselves into these lagoons, but the vicinity of the hills to the sea allowing

* Twenty-six years elapsed from the first voyage of Columbus before the rumoured existence of the celebrated empires of Mexico and Peru had reached the Spaniards, and their attempts at colonization were still confined to St. Domingo and Cuba. In 1519 Hernan Cortez, with eleven small vessels and 617 men, quitted St. Domingo for the conquest of Mexico; and in 1521 it was accomplished by the reduction of the capital, said by the Spanish historians to have contained 140,000 houses, with an immense number of temples, of which that of the god of war was the most magnificent, and struck the Spaniards with astonishment.

them very short courses, their volume of water is small, though towards their mouths they spread into shallow lakes. The two most considerable rivers are the Colorado, which falls into the lagoon of St. Bernard, and has a course of 290 leagues; and the Rio Brava del Norte, or Rio Grande, whose length is 512 leagues: both, however, run through an uncultivated and almost uninhabited country. On the south, the only rivers of any utility to navigation, are the Guasocualco and the Alvaredo, both S.E. of Vera Cruz, which facilitate the communication between the Gulf of Mexico and the towns of Guatimala on the Pacific. The only places capable of receiving even small craft are Sotta la Marina, on the bay or lagoon of St. Ander; and Tampico, situated on a neck of land between Tampico and Tamiagua lagoons; Villa Rica de Almeria is a small town on a river.

Vera Cruz is situated on a sandy and barren plain, in the neighbourhood of infectious marshes. Its fortifications are a wall six feet high and three broad, flanked with six small square towers, the port is besides protected by two batteries; the streets are wide and paved with pebbles; the houses are of coral stone, with wooden projecting balconies, many of them in ruins. The population is 7,000, amongst whom are many rich merchants. The port is intricate, and exposed to the northerly winds, which in winter blow with the force of the hurricane, and often drive ships on shore; there is room for 100 vessels in four to ten fathoms. Opposite the town, at 400 fathoms distance, is an islet,

islet, on which is the castle of St. Juan d'Ulloa, mounting 300 pieces of cannon.

East of Vera Cruz the coast forms the large Bay of Campeachy, bounded on the east by the peninsula of Yucatan. The considerable river, Grivalja, falls into the bay, by two mouths enclosing the island Tabasco. The western, or Tabasco branch, is two miles wide, but is crossed by a bar with only twelve feet water, within which, for eight leagues, the depths are three to five fathoms. In the rainy season it carries so great a volume of water to the sea as to freshen it outside the bar. The town of Tabasco, on the island, is small, but well built.

Terminos Lagoon, or the Lake of Tides, is the S.E. extremity of the Bay of Campeachy; before it are the islands Beef, Trieste, and Port Royal, all low and generally swampy.

The banks of the rivers or creeks, communicating with the Terminos Lagoon, are covered with logwood trees.

St. Francisco de Campeachy is the only town of any consideration on the west coast of Yucatan. It contains 6,000 inhabitants, and has a good port, defended by a fort.

On the north coast of Yucatan, between Point Piedras, the N.W. point, and Cape Catoche, there is no settlement, and the coast is lined with reefs. Numerous look-out houses are seen on the shore, in which Indians are continually on the watch for ships; some of these houses are built of wood,

and others are constructed like great cages in large trees.

The BAY of HONDURAS is that gulf of the Caribbean Sea between the peninsula of Yucatan and Cape Honduras. The English claim the right of cutting logwood on the coasts of all this gulf, from Cape Catoche, on an island at the N.E. point of Yucatan, to the River St. Juan in 12°, which has several times occasioned disputes with the Spanish government. The first adventurers in this business were persons of desperate fortunes and characters, who fled from the West India Islands; and who, during the season of inactivity on shore, pursued the business of piracy. In 1722 the Spaniards destroyed their establishments, and put to death all the persons they found in them; but another settlement being formed, Spain at last was prevailed on to tolerate it within certain limits, and with the stipulation of building no forts. The former are, by treaty of 1788, the district between the Rio Hondo and the River Ballize, or Wallis of the English, the course of the rivers being the fixed boundaries: this district is a great plain full of lakes and swamps. The River Ballize has a course of 200 miles; and at its mouth is the grand establishment of the English, composed of wooden dwellings.

Cozumel Island, on the east coast of Yucatan, is three leagues off shore, fourteen leagues long and two broad. It is covered with timber, cocoa-nut and banana trees; and is inhabited by a few Indians, of whose ancestors it was a sacred place of pilgrimage;

pilgrimage. It is celebrated in the history of New Spain as the first spot where mass was said by a monk in the *suite* of Cortez; and at the same time that the Pagan idols were destroyed, the cross was erected, and the island received the name of Santa Cruz.

Ambergris Key is a sandy island, twenty leagues long and one to five broad, laying parallel to the main, at the distance of three miles. The northern triangle is a great reef, with many keys, twelve leagues east of the north end of Ambergris Island. Turneff Key, off the River Ballize, at twelve leagues distance, is fifteen leagues long, but very narrow. It is entirely of sand, with patches of wood, and bare intervals, causing it to make like many islands.

The only Spanish place of any consideration on the east shore of the Yucatan peninsula is Salamanca de Bacalor, a small well built town and fort, situated among unhealthy marshes formed by the Rio Hondo.

The coast of Honduras extends from the Gulf of Anatic to Cape Honduras, where commences the Mosquito shore. The only place of any consideration on the coast of Honduras is San Fernando de Omoa, a large Spanish fort on a convenient bay; a fine river runs close to it, but it is the most unhealthy part of the coast from the stagnant waters.

Truxillo, a town a mile from the sea, between two rivers abounding in fish. Its port is safe, and the most frequented of the coast of Honduras.

Rattan Island, thirteen leagues west of Cape Honduras, is eleven leagues long east and west, and three broad. On its south side is the harbour of Port Royal, a vast basin capable of holding 500 sail, but with so narrow an entrance, as to admit but one ship at a time. The island affords white oak and pines fit for small masts, as well as cocoa-nuts in abundance. It is also frequented by vast numbers of green turtle, and by the manati, in both which animals the Bay of Honduras seems to be the most abundant region of the globe. The climate of Rattan Island is esteemed particularly healthy.

That part of the coast of New Spain from Cape Honduras to the River St. Juan, is named the MOSQUITO SHORE, and the Indians who inhabit it, the Mosquito Indians,* whose implacable enmity to the Spaniards has prevented the latter from attempting any establishments on the coast. In 1670 these Indians claimed the protection and acknowledged the sovereignty of the King of England, but it was not until 1730 that the English formed a settlement at Black River, thirty leagues east of Cape Honduras; another near Cape Gracios à Dios; and a third at Bluefield's Bay. In 1741, a civil government was established, forts built, and garrisoned with British troops. At the peace of 1763, the troops and civil officers were

* Near Cape Gracios à Dios is a tribe of negroes, named *Samboos*, probably the descendants of African Negroes, forming the cargo of a slave-ship wrecked on this coast.

were withdrawn, under the idea that this extent of coast was within the limits of the clause respecting the non-erection of forts, but the government discovering the mistake, and finding these settlements *not* in the limits, in 1776 the establishments were placed on their former footing, but again withdrawn in 1788.

The Mosquito Indians are chiefly occupied in fishing, particularly in striking the manati, and taking turtle; which latter they supply to the small vessels from Jamaica. This nation was formerly very numerous, but has been greatly thinned by the small-pox, the number of fighting men being estimated at from 7 to 10,000. The whole Mosquito shore, from Cape Gracios à Dios its N.E. point, to the south, is lined by keys and reefs.

The government of Costa Rica is washed by both oceans. On the north it is bounded by the Lake Nicaragua, 120 miles long and forty-one wide, with a great depth, and several islands. It empties itself into the Caribbean Sea by the River St. Juan or Del Desaguadero, whose course is twenty leagues, and its navigation fit for small craft, though the current is so strong, that boats are nine days ascending it, and but thirty-six hours in the descent. At its issue from the lake is the castle of N. S. de la Conception, mounting thirty-six guns, with a garrison of 200 men, it being considered one of the bulwarks between the Spanish possessions on the two seas.

The province of Veragua is, like that of Costa

Rica, washed by both seas, but has no place worthy of notice on the Caribbean Sea.

The province of Panama occupies the isthmus that separates the two Oceans, and unites North and South America; its narrowest part, from the head of Mandingo Bay, in the Caribbean Sea, to the mouth of the River Bayano, in the Gulf of Panama, is only twenty miles. The Cordillera, or Chain of Andes, continues its course from South America through the peninsula.—(N. B.) The provinces of Veragua and Panama are considered *politically* in the kingdom of Terra Firma.

Porto Bello, in the province of Panama, from being one of the most celebrated cities of Spanish America, has since the discontinuance of the galleons dwindled to total insignificance. It is placed on the declivity of a mountain surrounding the port, and consists of about 130 houses, chiefly of wood, or the basement of stone, forming one long street. The port, discovered by Columbus in 1502, is entered by a channel with only 15 feet water, which was formerly defended by three castles, destroyed by the English under Vernon in 1742. N.W. of the city is the cove of La Caldera, sheltered from all winds. The climate of Porto Bello is eminently unhealthy, being surrounded by lofty hills, that cause a total stagnation of air, and at the same time produce deluges of rain, and tremendous thunder and lightning. One of the mountains, rising from the port, presents a similar phenomenon to that of the *Table* at the Cape of Good Hope, its top being covered with

a white cloud which when it descends lower than common, indicates a storm.

The woods which surround the town, and greatly add to its unhealthiness, abound in tigers, which often descend into the streets, and carry off the animals they meet, and even at times human beings. Snakes are also very numerous, and the toads are a perfect plague, the streets after rain being covered with them so thick that it is almost impossible to walk without treading on and being bitten by them.

SOUTH AMERICA.

A line drawn from Porto Bello in the Caribbean Sea, to Panama, on the Pacific Ocean, is generally considered the boundary between NORTH and SOUTH AMERICA.

The kingdom of TERRA FIRMA, or CASTILE DEL ORO, extends from the province of Veragua on the west to the River St. Juan, which separates it from the province of Carthagena on the east; besides the provinces of Veragua and Panama, it comprises those of Terra Firma proper, and of Darien.*

The

* The province of Darien affording no mines was overlooked by Spain, until the beginning of the eighteenth century, when in order to prevent the establishment of the British, a legion of Monks were sent to convert the Indians, whom they collected into eight or nine villages, of which in 1780 only three or four remained; and the military force in the province did not exceed 150 soldiers in four small forts.

The only place of any consequence in the province of Terra Firma is Nombre de Dios, a small town on a bay, open to the east, seven leagues east of Porto Bello. It is little visited except by occasional smugglers.

Port Scrivan, ten leagues further east, is a tolerable harbour, but with a dangerous entrance, and bad landing, the shore being flat and muddy.

Cape St. Blas, or Samballat Point, is the west point of the Gulf of Mandinga, or Darien. Off it, at the distance of four miles, are Samballat Islands, said to be 400 in number, all sandy and low, but covered with trees, and affording numerous good anchorages, formerly much frequented by the Buccaneers to procure water, which is found on most of them, and green turtle, which are extremely abundant.

The Isle of Pines, near this coast, is low, two leagues long, covered with wild fruit trees, particularly cocoa-nuts, and has abundance of good water, and a port for small vessels. It was occupied by the Scotch when they attempted in 1700 to form the settlement of New Edinburgh on the main land within it, but from which they were driven by the Spaniards.

Santa Maria de Darien, nominally the chief place of the province, is a miserable hamlet on the west shore, near the head of the gulf.

The New Kingdom of Granada occupies all the north coast of South America, from the province of Darien on the west to the River Oronoco, including the maritime governments of Carthagena,

tagena, Santa Marta, Maracaibo, Venezuela, and Cumana.*

The government of Carthagena commences on the west at the river St. Juan, which is navigable and abounds in alligators. The coast is in general low, swampy, and sandy. The Bay of Morosquillo, on the west coast, is wide, but entirely open. St. Yago de Tolu, is an insignificant town on the east shore of the bay, from whence the medicinal balsam has its name, its territory abounding in the trees that afford it.

CARTHAGENA, the principal city of the new kingdom of Granada, is situated on a sandy island joined to the main by two artificial causeways seventy yards wide. The city is well built and regularly fortified, the houses chiefly of stone, the streets wide and well paved, the inhabitants 25,000. The climate is excessively hot, and unhealthy to strangers, and the town has no fresh water but what is preserved in cisterns from the rains, which are continual in the months from May to November, with heavy storms. The port, which is one of the best of these coasts, is formed by three islands. The Boca Chica, is the entrance for large ships, and is so narrow, that but one ship can enter at a time. The Boca Grande is a mile wide, but has only twelve feet depth.

Carthagena is the depot of all the productions of the

* The coast between the Gulf of Darien and Maracaibo, is called by the English *The Spanish Main*, which is also sometimes extended to the whole coast as far as Trinidad Island.

the provinces of Darien and Santa Marta, and whence they are shipped for Europe. There is a profitable pearl fishery in the vicinity.

Samba or Tumba Bay, north of Carthagena, is an excellent port within the four Arena (Sandy) Islands; the channels between which are all safe.

The government of SANTA MARTA extends from the Great River Magdalena, on the west, to the Gulf of Maracaibo. The above river has a course of 300 leagues, almost directly from south to north; and is navigable 160 leagues to the town of Honda. Its banks are covered with immense forests, the retreat of tigers and of savage Indians. The river is also greatly infested by alligators, but abounds in fish. The produce of the interior is conveyed down it by flat boats. At its mouth its alluvion has formed the Isle Verd. It disembogues with such velocity that it does not mix with the sea water for twenty leagues.

Santa Marta, the chief place of the government, is a poor place, of generally straw-thatched houses, but with a port fit for a large fleet. It is surrounded by vast mountains, whose summits, three leagues from the town, are sometimes covered with snow; hence it is less hot and more healthy than Carthagena: besides, it is abundantly supplied with excellent water by the River Gaira, which passes close to it.

Nostra Senora de Remedios, the only other port town of this province, is at the mouth of a river. It is entirely gone to ruin since the abandonment of the pearl fishery, which formerly gave it some consequence.

consequence. It is, nevertheless, defended by the regular castle of St. George; but what gives it most importance is a miraculous image of the Virgin, which, whenever the city was attacked by the Buccaneers, *turned her back upon it*, and her face towards the mountain; the truth of which miracle, says Alcedo, is justly authenticated by the bishop of Santa Marta. This must be allowed to have been rather an extraordinary method of evincing the Virgin's protection.

Cape de la Vela is a long high promontory, joined to the main by low land. Portete and Bahia Honda, between it and the Gulf of Maracaibo, have no settlements; but are sometimes visited by the English to purchase pearls from the Indians.

CARACCAS.

The Captain-generalship of the Caraccas comprises the provinces of Maracaibo, Venezuela, Cumana, and Spanish Guiana.

The tides on the coast of Caraccas are very inconsiderable.

The Gulf of Maracaibo penetrates into the province of Venezuela seventy leagues, and communicates by a strait, three leagues wide, with the Lake of Maracaibo, which is fifty leagues long and thirty broad; and is navigable for the largest ships. The waters of the lake are perfectly fresh, except in strong northerly winds, but they have a

nauseous

nauseous taste. The lake abounds in all the salt water fish of the Caribbean Sea, but turtle do not enter it.

On the N.E. shore of the lake are many pits of mineral pitch, the exhalations from which are in a constant state of ignition, at night appearing as a bluish vivid flame, which, serving to guide the fishermen, has got the name of the lanthorn of Maracaibo. The banks of the lake are in general barren and unhealthy, and hence the Indians preferred constructing their dwellings on floating stages in the lake; the great number of which, observed by the Spaniards in their first visits to this coast, caused them to give it the name of Venezuela, or Little Venice. At present but four of those floating villages remain; and their inhabitants subsist solely on fish and wild ducks, with which the lake abounds.

The west bank of the lake being fertile some Spaniards have there formed plantations of cacao; the south and east banks are entirely covered with wood and uninhabited.

The town of Maracaibo is on the west shore of the strait into the lake. Its houses are mostly of stone, thatched with reeds; and in 1804 it contained 25,000 inhabitants. It has three forts, with a garrison of 250 men, besides a large militia. The climate is extremely hot, but is not found unhealthy. The port is capacious and secure; and from the abundance of ship-timber in the neighbourhood a number of vessels are built here. The water

water of the lake being disagreeable and often brackish, rain water preserved in cisterns is generally used by the people of condition.

The province of VENEZUELA lies between those of Maracaibo and Cumana. This country was first visited by the Spaniards in 1527, but their thoughts being entirely turned to the search for mines, they neglected the more certain means of enriching themselves by cultivating the soil; and it was not until the Dutch got possession of Curaçoa, in 1634, that these colonists began to raise cacao, for which they found a ready market in exchange for European goods at the Dutch island; and hither they have always continued to send it, in spite of the severity of the prohibitions.

The peninsula of Paragoana forms the east side of the Gulf of Maracaibo, and is joined to the main by an isthmus two leagues broad. The peninsula is twenty leagues long, and is inhabited by Indians and a few whites, who breed cattle, which they dispose of at Curaçoa.

Coro, on the isthmus, is at the mouth of a salt river, on a barren sandy spot. It contains 10,000 inhabitants, who subsist by the export of cattle and skins to Curaçoa, and the contraband import of manufactured goods in return.

The River Guignes, sixteen leagues east of Coro, is navigable six leagues, but is little frequented. Tocuyo River is navigable forty leagues, and considerable quantities of timber are floated down it.

Porto

Porto Cabello * is the only harbour of the province perfectly sheltered from north winds; in which direction it is formed by a semicircular peninsula, and on the other side is surrounded by high hills. Ships of the largest size lay alongside a handsome quay. The town, which contains 7,500 inhabitants, is unhealthy, from the confinement of the air and the vicinity of marshes. The variations of the thermometer are 90° and 76°. The fortifications are a strong fort, on an island to the N.E., and some other works, on a hill commanding the town. The garrison consists of two companies of regulars, and the inhabitants compose a militia of 3,000.

The trade of Venezuela centers in Porto Cabello; but though, in 1796, it was allowed a direct trade with Spain, little advantage was taken of this permission, and its chief transactions were of a smuggling nature with Curaçoa and Jamaica; which, together with the coasting trade, employed fifty to sixty vessels; while the trade with Europe never exceeded three or four a year. Between Porto Cabello and la Guaira are a number of forts with small garrisons, intended to prevent smuggling; the largest is one of eight guns, on Ocumare Bay, which is well sheltered.

La Guaira, though the worst port on the coast, is the most frequented; it is entirely exposed to the

* Literally *Hairport*, alluding to its security, which is such, that, according to the trivial expression, a vessel may ride by a hair.

the prevailing trade wind, and the currents are very strong. The town is built at the foot of a rugged mountain, which rises so close behind it that the loosened masses of rock from its side frequently roll into the streets and do much damage. This situation also renders the heat extreme by reverberation from the mountain; the thermometer for nine months rising to 98°, and the summer months are very unhealthy. The population, including the garrison, is 6,000. La Guaira is the port of Leon de Caraccas, the chief town of the captain-generalship, and is the principal entrepot of the commerce of this province with Europe.*

Between La Guaira and Cape Codera are seventeen small rivers, emptying themselves into the sea and fertilizing the cacao plantations on their banks. The only port is Jasper Bay, or Cape Français; by which the inhabitants export their produce to La Guaira.

The River Tuy, the most considerable of this coast, empties itself east of Cape Codera. It is navigable for vessels of middling size, and subject to inundations.

Tacarigua Lake is a circular lagoon, or rather bay, whose entrance is at times crossed by a sand bank, but within is deep water. It abounds in fish, but is infested by alligators.

The province of CUMANA extends from the River Unare to the Orinoco. It is a continued

* Both the cities of Caraccas and La Guaira were almost totally destroyed by a terrible earthquake in 1812.

sierra, or chain of mountains, approaching near the sea, where they are very barren and the soil impregnated with nitre; the coast also abounds with natural salt-pans, of which the most celebrated are those of Araya and the Gulf of Triat. The salt is used in curing fish, with which this coast abounds, as well as in shell-fish of many species. The three rivers of any consequence are the Cariaco, the Cumana and Guarapiche. This province has several good ports, and its coasts are seldom visited by storms.

Cumana was first attempted to be colonised by Las Casas, the protector of the Indians, upon principles very different from those of the conquerors of Mexico and Peru—those of justice and moderation; but the 200 husbandmen and artificers that were prevailed on to follow him from old Spain, were soon thinned by disease, desertion, and the hostilities of the Indians, and obliged him to relinquish the idea. Some straggling Spaniards afterwards fixed themselves on this coast, but until the middle of the eighteenth century, the province was almost entirely neglected by the mother country.

The inhabitants are about 14,000, of whom one half are whites. The chief industrial pursuit of this district is the rearing of cattle, and the supplying the Havannah and other islands with jerked and salted beef. This coast has also a great smuggling trade with Trinidad, whither it is said 400,000 dollars are sent annually for the purchase of dry goods.

The

The Gulf of Cariaco is formed by the low peninsula of Costa di Araya on the east, and on the side of the main is surrounded by high mountains. It runs in S.E. ten leagues, and is three to four leagues broad, with a depth of eight to ten fathoms. The city of Santa Ines de Cumana is on the south shore of the gulf, on the River Manzanares or Cumana, which admits only boats, vessels being obliged to anchor a league west of the river's mouth. The town being well built on a dry soil is healthy, though the heat is great, the thermometer rising to 95°. The frequency of earthquakes has caused the houses to be all built low, and generally of wood. The population is 24,000.

The principal fortification is a strong fort, on an eminence, with a garrison of from 1,000 to 1,200 regulars, militia, and negroes.

The river Cariaco falls into the head of the gulf, and on it is the city of Cariaco, or St. Philip de Austria, containing 6,000 to 7,000 inhabitants. It exports a considerable quantity of cotton.

The Guarapiche is a considerable river, emptying itself into the Gulf of Paria with great velocity, twelve leagues north of the Grand Manamo mouth of the Orinoco.

The ORINOCO is the third river of America; its source, though not ascertained, is probably in the Sierra Nevada, in the province of Guiana. It is named by the Indians *Ibirinoco*, which has been corrupted to Orinoco, Orenoque, Oroonoko, by the Spaniards, French and English. The course

of this great river is singularly tortuous, forming a perfect *spiral* until it empties itself into the sea by fifty mouths, traversing a *delta* of swampy islands of sixty leagues in extent towards the sea.

An annual rise and inundation of the Orinoco takes place in April, and the waters return to their bed in October, and are at the lowest in February. At St. Thomas, ninety leagues from the sea, the difference between the highest and lowest level of the river is ninety feet: the volume of water it carries to the sea renders the latter fresh thirty leagues from the coast.

The Orinoco abounds with fish, and with the *manati*, but is likewise infested with alligators of an enormous size. The *quartatinajas* and the *capa* are amphibious animals of this river eaten by the Indians; and the *lirver* is a small quadruped found in the river, with a pouch resembling that of the opossum.

Seven only of the fifty mouths of the Orinoco are practicable by any kind of vessels,* and of these seven

* The first of the navigable mouths is the *Grand Manamo*; the second, the canal of *Padernales*, three leagues south of Devil's Island, at the entrance of the Gulf of Paria, it is only fit for long boats; the third mouth, named *Capura*, is seven leagues south of Padernales, is also only fit for boats; the fourth, named *Macares*, is six leagues south of Capura, and is navigable by small craft; *Marinas*, the fifth, is twelve leagues south of the fourth, but between them are many mouths navigable when the river is high; the sixth mouth, is eighteen leagues south of Marinas, and is navigable by small vessels; the seventh, named the *Grand Mouth*, is eight leagues south of the sixth, its breadth is eight leagues between the islands Congrejos on the N.W., and Point Berima on the S.E., but the navigable channel is not above three miles, and is crossed by a bar with seventeen feet at low water; the approach to this entrance is dangerous from the shoals running off seven leagues from Congrejos Island and two leagues from Point Barima.

seven but one admits vessels of any size. The tide is perceptible to St. Thomas, where the breadth of the river is four miles, and its depth sixty-five fathoms; 100 leagues above St. Thomas the breadth is near three miles.

The town of St. Thomas exports a great number of oxen and mules to the West India islands. In 1803, thirty small vessels were employed in this traffic to Trinidad.

GUIANA.

The region named GUIANA extends from the south branch of the Orinoco to the river Amazons. The numerous rivers which empty themselves on these coasts carry with them vast quantities of mud, which being deposited on the shores, form a border of low ground, between high and low water marks, covered with mangrove. When the tide flows, this border has several feet water over it, and when it ebbs it presents an inaccessible mud-bank.

Behind this border of mangroves, at 4 or 500 paces, commence low, level, swampy savannahs, formed by the rains, and which are prolonged in the direction of the coast with a depth more or less considerable, according to the distance of the mountains. The water on all the coast is brackish. There are on these coasts two rainy and two dry seasons in the year; the former in December, January, and February, and again in June, July,

and August. The land winds prevail during these months and are unhealthy. In the dry season the air is refreshed by regular diurnal sea breezes.

Guiana is divided geographically into Spanish, Dutch, French, and Portuguese, different portions having been occupied by those nations. SPANISH GUIANA extends on the coast from the Orinoco to the river Poumaron a distance of thirty leagues. There is no European establishment on the coast, it being inhabited by Caribb Indians, inveterate enemies of the Spaniards, in which they are supported by the Dutch.

DUTCH GUIANA extends from the Poumaron to the Maroni, or Marowiné, though the first limit does not seem to be much respected by the Hollanders, who have encroached on the Spanish province, having formed a settlement at Macoca Creek fifteen leagues west of Poumaron. The French were the first Europeans who attempted a settlement on this coast in about 1630 or 40, but they again abandoned it on account of the unhealthiness of the climate. In 1650 the English projected a colony on it, and in 1662, a charter was granted for that purpose by Charles II. At the same time the Jews, driven out of Brasil, sought refuge here, and their descendants now form the half of the whole population. In 1667, the settlements were captured by the Dutch, while the English got possession of New York, and at the peace each nation agreed to keep its conquest. In 1781, Demerara and Essequibo were so defenceless that they were taken by an

English

English privateers, but receiving no succours the British were in their turn obliged to cede to a French corvette, and by the peace of 1783 these colonies returned to Holland. In the war of the French revolution (1796) they were captured, together with Surinam in 1799, by the English, but restored by the peace of Amiens, and again taken in the late war by the English by whom they are still retained.

Dutch Guiana is divided into three governments, 1. Essequibo and Demerara; 2. Berbice, and 3. Surinam: each named from the considarable river that runs through it. The Essequibo issues from Lake Parima, has a course of 300 miles, and empties itself by four mouths, practicable only by small craft; barges ascend it six days navigation. Before the river are a number of fertile islands. Fort Island, fifteen leagues up the river, is the chief place, but the fort is in ruins.

The river Demerara is two miles wide at its mouth, but is crossed by a mud-bank with eight or nine feet low water, and eighteen at high; ships capable of passing over this bar may ascend the River 300 miles. Staebroeck, the chief place of this government, is on the left bank of the river, one mile and a half from the fort on the west bank that defends the entrance. The population of the town is 1,500 whites, 2,000 free people of colour, and 5,000 slaves. The other towns and villages are Kingston, contiguous to the fort at the entrance of the river, and New Town built by the English. Cumingsburg,

and Bridge Town are on or near the banks of the river.

The population of the government of Essequibo and Demerara is 8,000 whites and 40,000 slaves. About fifty ships from Holland loaded annually at Staebroeck, besides 250 small vessels.

The official value of imports to England and exports thence was,

	Imports.	Exports.
1809	£510,871	£278,998
1810	778,404	346,783

The chief exports from the colony were,

	Coffee.	Sugar.	Rum.	Cotton.
	cwt.	*cwt.*	*gallo.*	*lbs.*
1809	24,528.	156,431.	313,370.	4,012,257
1810	45,480.	150,624.	96,442.	7,381,122

The river Berbice empties itself by two mouths, surrounding an alluvian island named Crab Island from the number of land crabs on it. A bar of sand five miles without the river, prevents vessels of more than fourteen feet from entering it, and hence it is little frequented.

New Amsterdam, the chief town, is near the mouth of the river, and is intersected by canals, which, being accessible to the tide, have not the ill effects of stagnation. The government house and public buildings are of brick and handsome. The entrance of the river is protected by three forts or batteries; but they are of little use, for Berbice must, from its situation, always follow the fate of Demerara.

The

The river Canje, which unites with the Berbice at New Amsterdam, is navigable for schooners thirty miles, and a navigable communication might be easily effected from it to the Surinam.

The imports and exports were,

	Imports.	Exports.
1809	£193,663	£49,662
1810	191,566	51,785

The principal exports from the island were,

	Cotton. *cwt.*	Sugar. *cwt.*	Rum. *galls.*	Cotton. *lbs.*
1809	17,665	7,760	20,355	1,874,193
1810	22,582	3,827	6,193	1,656,057

Surinam river has a course of 250 miles; its mouth is four miles broad, with a depth of sixteen to eighteen feet at low water, and twenty-eight to thirty at high. These depths continue for ten miles, where it is crossed by a bar with twelve to twenty feet, according to the tide; and here it divides into several branches, all navigable by small craft far into the country.

Parimaribo, the chief place, is on the left bank of the river, six leagues from the sea, and is a very neat town, the houses chiefly of brick basement (the bricks being brought from Holland) and superstructure of wood with shingle covering. The number of houses is about 1,400. The streets are shaded by orange, lemon, shaddock, and tamarind trees. The water of the river and wells being brackish, the white inhabitants use only that preserved in cisterns from the rains.

The approach to the town by the river is de-

fended

fended by several works on each shore, of which the fortress of Amsterdam is the most considerable; it is eight miles above the river's mouth. The citadel of Zealandia is below the town, from which it is separated by an esplanade: it protects the shipping, which lay in a fine reach of the river a mile wide, and capable of holding one hundred sail.

The other rivers of Surinam of any note, are, the Suramine, crossed by a bar with three fathoms. The Marowine, which empties itself by many mouths among alluvion islands; above the islands its mouth is three leagues wide, and it is navigable fifty leagues, to which distance the depth is four to six fathoms.

French Guiana occupies 160 leagues of coast from the Maroni on the north to the Carapona on the south; this latter, which falls into the Amazon in 6° 30′ north latitude, being agreed on as the limit by France and Portugal in 1801.

The French first established themselves on this coast in 1625, and gave it the name of *equinoctial France*; but in 1654 they again abandoned their only establishment at Cayenne, and the Dutch sought to fix themselves on it, but the French returning in 1664, drove them out, and though the island was again taken by the Dutch in 1676 they were obliged to restore it the following year.

In 1809 the colony was captured by the English and Portuguese forces combined, but restored by the recent treaty of peace.

The whole coast of French Guiana is lined by drowned

drowned mangrove islands and mud banks, which bar the mouths of the numerous rivers, and the navigation of which is also generally impeded by ledges of rock. The rains which prevail from January to July, form stagnant ponds and marshes, that render the climate extremely unhealthy. The currents are very strong and irregular along this coast.

The colony of Cayenne has never been of any considerable advantage to France, as will appear from the following statements of its population and exports.

Population of the colony, exclusive of Cayenne Island.

	1775.	1788.	1798.
Whites	1,300	1,307	1,800*
Free people of colour		894	
Slaves	8,000	10,748	
	9,300	12,449	

In 1772, Cayenne Island contained only ninety white families, 125 Caribbs, and 1,500 slaves.

The exports from the colony were,

	Sugar. *quint.*	Coffee. *quint.*	Cacao. *quint.*	Cotton. *quint.*	Rocou. *quint.*	Wood. *quint.*	Hides. *No.*
1775.	840	900	1,000	1,000	6,000	1,400	350
1788.	20	159	210	925	Indigo 50		

The only place worthy of mention north of Cayenne, is Sinamari, a miserable post, containing in 1798 only fifteen or sixteen huts, the remains

* Cayenne included.

remains of a settlement founded in 1763. Cayenne Island lies in the mouth of the Oyak River, forming two branches. The northernmost named Cayenne River, has but thirteen feet soft mud; the southern branch is called the Malnuri. The island is sixteen leagues in circuit, and is extremely unhealthy; for the interior being lower than the shores, the rain water stagnates and forms putrid marshes. The town is built on the N.W. point of the island, and is a wretched place, the streets steep and narrow and paved with sharp stones.

Among the numerous islands off Cayenne, the only ones deserving mention are the Two Constables, or Gunners, barren conical rocks whitened with birds' dung. The Malingre Islands, three leagues S.E. of Cayenne, are almost inaccessible; on one of them is an hospital for lepers, this malady being very common at Cayenne.

South of Cayenne the principal rivers are the Approuak, which has twelve feet depth at its entrance; the Oyapok, which empties itself west of Cape Orange; the Cassipour; Coanwine, &c.

Portuguese Guiana occupies the left bank of the Amazons.

The Amazons, Maranan, or Orellana, is not only the largest river of America, but of the world. Its source, though not absolutely ascertained, must be within two or three degrees of

of the Pacific Ocean, in about the latitude 10°, and its course is nearly due west across the continent, emptying itself under the equator. It is navigable nearly its whole length, though it has many banks of sand, some of which are thirty to forty leagues long. Thirty-five leagues from the sea, at the confluence of the Singu, its banks are out of sight of each other, and at Obidos, 150 leagues from the sea, the breadth is 1,000 fathoms. The tide is perceptible 200 leagues. Though the declivity of its bed from Obidos to the sea is only four feet, the immense body of anterior water gives it such a vast impetus, that it rushes into the sea with amazing velocity, freshening the latter eighty leagues from the shore. This rapidity also occasions a bore, named *pororoca* by the Indians, far surpassing those of the rivers of Hindostan. This phenomenon always occurs two days before and after the full and change of the moon; when, at the commencement of the flood, the sea rushes into the river, forming three or four successive waves that break mountains high on the bar, and raise the tide within to its greatest elevation in one or two minutes. It is said that the elevation of these ridges of water is not less than 200 feet.

The two principal mouths of the river are separated by the swampy alluvion island Caviana, besides which, many similar islands are formed by its mud.

The only places in Portuguese Guiana of which

any thing is known, are the little fort of Macapa, and the fortified village of Para, both on the Amazons.

BRASIL.

The great region of South America, named Brasil extends from the Amazons to the Rio Grande de St. Pedro.* The N.E. extremity was discovered by Vincent Pinçon, in the service of Spain, who landed in 1500 at the Cape, which he named *Consolation*, but which the Portuguese changed to *St. Augustine*. This country being within the Portuguese line of demarcation, was taken possession of by this nation the year of its discovery; and in 1502, Cabral, on his course to India fell in with the coast near Porto Seguro, and also took possession of it for his king. In 1504, Americus Vespucius was sent out to examine the country, and bringing to Portugal a cargo of Brasil wood, it turned out so profitable, that many expeditions of the same kind followed, and

* After many disputes respecting the limits of Brasil on the south, they were fixed at the Rio Grande de St. Pedro; but in 1770, the Portuguese crossed this river and formed settlements on the west or Spanish bank, which nearly produced a war in Europe between the two nations, and hostilities were commenced in America, the Spaniards taking the island of St. Catherine. By treaty in 1777, the limits were, however, finally settled, the Rio Grande still remaining the boundary, but its navigation was exclusively secured to Portugal. From this river the boundary runs along the east bank of Lake Merin.

and the whole coast received the popular name of Brasil, which entirely superseded the more holy ones conferred on it by Pinçon and Cabral. The first colonists were twenty-four men left behind by Cabral in a small fort he constructed, to whom were added some agents of the merchants who entered into the trade of wood; and finally Portugal, who had hitherto transported her criminals to Africa, now sent them to America.

It was not, however, until thirty years after the voyage of Vespucius that the mother country commenced the efficient colonization of Brasil, and for this purpose it was divided into fourteen captainships, each of which was granted to some noble Portuguese who possessed the means of carrying the plans into execution. The first of these captainships that received European settlers was St. Vicente, and here the first sugar-canes were introduced from Madeira, and the first cattle from Portugal. The progress of colonization was so rapid, that it was soon found necessary to give the colony a new form of government, and accordingly the grants to the captains, who had generally abused their unlimited power, were revoked, and the crown appointed a governor-general for the whole colony. About the same time, the Jesuits sent some of their brethren to convert the Pagan and savage natives.*

The

* If we may credit the relation of these missionaries, the epithet *savage* was never more deservedly applied than to the Brasil Indians. As an instance of the horrible barbarism of these "children of nature," the fol-

The infancy of the colony was not, however, tranquil. In 1558, the French attempted to form an establishment at Rio de Janeiro, which the Portuguese resisting, hostilities in the colony were the consequence; the details of which have little interest. The English also, on the subjection of Portugal to Spain, carried their depredations to the coast of Brasil; but Spain found a much more formidable enemy in the Dutch, who in 1623 captured the city of San Salvador, but were again obliged to relinquish it. In 1629, however, they returned with a strong force and made themselves masters of six of the provinces from Seara to Sergippe, and were upon the point of conquering the whole colony, when the separation of Portugal from Spain caused a pacification in Europe. The Dutch, however, refused to restore some of these provinces, and delayed evacuating others; and the Portuguese not being prepared to recover

ing it elted. Whilst the preparations were making for the sacrifice of a war captive, a woman was appointed to receive the caresses of a husband, the captor not scrupling thus to bestow his daughter or sister. All her pregnancy was celebrated as a joyful event, for it being the opinion that the child partook solely of the flesh and blood of the father, when it grew to a certain age, and was thought to be in proper condition, it was killed and devoured, the nearest kinsman to the mother officiating as butcher, and the first mouthful being given to the mother herself. We should deny the possibility of this horrible degradation of human nature, was it not corroborated by the assertion of the missionaries, that the women, in whom tenderness of heart is an innate principle, often assisted their captive husbands to escape, and sometimes fled with them, while others took drugs to procure abortion, and thus save themselves the horror of nourishing a child for slaughter; neither were there wanting instances of mothers who courageously defended their offspring.

ner them by force, pretended to acquiesce in this retention, until the Dutch, duped into security, withdrew the greater part of their troops, to save expense, and left the colony defenceless, of which the Portuguese taking advantage, secretly sent out a large force, and made themselves masters of all the strong posts, except Reciffe, in which they blocked up the Dutch. Though the court of Portugal disavowed the conduct of its officers, a war was the consequence, which was conducted so badly by the Dutch, that it terminated in their entire evacuation of the colony, and the relinquishment of all claims, in consideration of about £850,000 sterling paid by Portugal. Since this period (1661) the Portuguese have enjoyed the undisturbed possession of the colony, with the exception of some disputes with Spain, respecting the limits.

Each of the fourteen captainries of Brasil is under the government of a commander, who is subject to the general orders of the viceroy; but also receives orders direct from Europe. The captainries from north to south are Para, Maranhao, Seara, Rio Grande, Paraiba, Tamarica, Fernambuco, Sergippe del Rey, Bahia, Ilheos, Porto Seguro, Espiritu Santo, Rio de Janeiro, San Vicente and del Rey.

From the Amazons to Fernambuco the coast is lined by a reef three leagues off shore, forming a barrier to the encroachment of the sea on the main land, and through which are the entrances to the different ports of the coast. A number of rivers

empty themselves on this coast, which swell and overflow in the rainy season, but run dry in summer. Farther south, the only navigable rivers between Fernambuco and Rio de Janeiro are the St. Francis and Rio Grande de Porto Seguro; and from Rio Janeiro to the Rio Grande de St. Pedro, the coast is totally devoid of rivers.

The island Don Johannes or Marago is on the southern shore, at the mouth of the Amazons, the grand branch of this river passing it on the north, and on the south it has the branch named the Grand Para or Tocatines. In ascending this last river, a number of fertile and populous islands are past, belonging to Portuguese noblemen, to whom they give the title of baron.

The city of Nostra Senora de Belem, or Grand Para, is on the right bank of the river, at the confluence of the Muja, which forms the port. The strength and irregularity of the tides among the islands render the access difficult. The depth in the port is four to six fathoms; but it rapidly diminishes by the mud deposited in it. The city of Belem is the chief place of the captainry of Para, and has 10,000 inhabitants.

The island of Maranham, in the great gulph of the same name, is twenty-six leagues in circuit, extremely fertile, and has 25,000 inhabitants. The city of St. Louis, founded by the French in 1612, is on the south side of the island, and contains 10,000 inhabitants. It is the seat of government of the three northern provinces, and the centre of their

their commerce with Europe, vessels of burden seldom venturing up to Para.

The river Paranaibo separates the captainries of Maranhao and Seara: this latter contains but 10,000 inhabitants, and its chief place, of the same name, or San Joseph de Riba Mar, is an insignificant town, on a hill; its port only fit for small craft, and the military force not exceeding 150 men.

Great Salinas bay and river are named from the quantity of salt made upon them.

Cape St. Roque is the N. E. point of Brasil.

The only place of any consideration in the captainry of Rio Grande, is Natal, on the Rio Grande, three leagues from its mouth, which is defended by the castle of Three Kings.

The river Paraiba separates the captainries of Rio Grande and Paraiba: at its mouth is the island San Antonio, and eight leagues up it the town of Paraiba, the chief place of the government, having 4000 inhabitants. It exports to Portugal, sugar, dye-woods, and drugs, by seven or eight ships of 250 tons. The entrance of the river is a league wide, and is defended by a fort on each shore.

The province of Tamarica has only seven leagues of coast, and but 1000 inhabitants. Nostra Senora de Conceiçao, the principal place, is a town of 200 families, situated on a hill in the island of Tamarica, which is separated from the main by a narrow channel on the south, forming a good port for ships. The island is eight leagues long, fertile, and well watered.

Fernambuco, Pernambuco, or Olindo,* the chief place of the capitainrie of the same name, is at the extreme east point of Brasil: its harbour is within the reef that lines the shore, and the entrance is three leagues north of the city. It is built on an elevation. In 1781 it had 12,000 inhabitants, besides the garrison of 800 or 900.

The other towns of this province are Serinham, on the river of the same name, Alagoas del Norte, San Antonio de Rio Grande, Alagoas de Midi, and Penada, on the St. Francis, which limits the captainry on the south. North of the St. Francis are the lakes Lagra de Sal and North Lake, communicating with each other, and with the sea, by a channel that admits only boats. The North Lake is three leagues long and half a league broad: the southern seven leagues long and two broad.

The captainry of Sergippe has no port for vessels of any size. The chief place is Sergippe del Rey, or St. Christopher, on the river Vazaboris, five miles from its mouth, and on an eminence. It is defended by a fort, and contains about 500 houses. The Rio Real separates Sergippe from Bahia.

Bahia de Todos Santos, or Bay of All Saints, is a great basin, thirty-six miles in circumference, with many islands, of which that named Taparica lies before the entrance, forming two channels, the eastern being a league wide, with twelve to twenty-

* Pernambuco, the Indian name, denotes its entrance through the reef. The name of Olindo is said to be derived from the first exclamation of the discoverers, "O que linda situaçam para se fundar huma villa!" "O how fine a situation for founding a town!"

twenty-four fathoms; but the western is winding and narrow.

The city of San Salvador, the chief place of the province, and the second of Brasil, is built on a rocky eminence 600 feet high, on the east shore of the bay, a league within Cape Salvador, the east point of the entrance. The streets, though wide, are so steep, as generally to preclude the use of carriages. The number of private houses is about 2,000, mostly of stone, and massively built. The religious buildings are of course numerous and rich, particularly the cathedral, dedicated to San Salvador. The population (1801) is estimated at 50,000 whites and 70,000 Indians and Negroes. The natural strength of the position is aided by strong fortifications, and the garrison usually consists of 5,000 regular troops, besides a large white and black militia. Many ships of war and merchant vessels are built here.

Serinhaem river separates the provinces of Bahia and Ilheos: the chief place of the latter is St. George, in a pleasant valley, on the river of the same name, which is crossed by a bar, and protected by forts. The population in 1778 was 20,000, of which not above 1,200 were whites.

The Rio Grande de Porto Seguro separates the provinces of Ilheos and Seguro. It is navigable a considerable distance, and forms an excellent harbour at its mouth. Its situation is denoted by four high rocks, resembling the Needles of the Isle of Wight. The port is formed by a ledge of rocks,

running parallel to the shore, from a point of the main land, forming a natural mole, a mile in length, quite dry at low water. Half a league distance from the extremity of the mole are the rocks already noticed; the channel between them being crossed by a bar, with but twelve feet at low water. The port is lined by a fine sandy beach. The city, built on the summit of a hill, is a mean place, of soft brick houses, plaistered, with but two churches. At the foot of the hill, on the bank of the river, is an Indian village, the chief employment of whose inhabitants is fishing for a species of salmon among the Abrollos reefs, which lay off this port,* and which is salted for the Bahia market. Fifty to sixty small vessels are employed in this fishery, and remain out from a month to six weeks, until they are full. The other commerce of this port is insignificant.

South of Porto Seguro are the establishments of Belmont and Santa Cruz. The harbour of the latter is only fit for vessels of twelve feet; but adjoining it is the Coroe Vermeil, a port for the largest ships. To the south of Rio des Fratres the coast is mountainous, lined with reefs, and inhabited by unconquered Indians, as far as the fishing town of Villa Prado. The town of Cebevellos is six miles up a river, whose mouth is crossed by a bar that excludes all but small craft, though within

* The Abrollos Bank extends a great distance from the coast, and appears to be formed of several extensive patches or banks, with deep water between them. The dangerous part of them extends along the coast several leagues to the north and south of the latitude 18°.

within the depth is ten fathom. This is a more industrious and thriving place than Porto Seguro, exporting considerable quantities of cassava to the north and south, and building small coasting vessels.

St. Matthew is the last place in the province of Porto Seguro.

The only place of any consideration in the province of Espiritu Santo bears the name of the province. It is a small town, with a good port.

Cape Frio is a conspicuous promontory, usually made by ships bound to Rio Janeiro.

St. Ann's bay is six leagues north of Cape Frio; on its north side are the three islands of St. Ann, forming a harbour between them, but which is exposed to the southerly winds that blow in strong gusts. These islands lay off the river Macal near two leagues; they have plenty of wood but no water. Besides the river Macal, the river St. John on the north, and Una on the south, fall into the bay, off the south point of which is Anchor island, from whence to Cape Frio the coast is lined with islands, and north of the Cape two leagues is the entrance of the lake Iraruama.

Off Cape Frio, one mile, is Double Island, so named from its two hills. The passage between it and the Cape seems to be safe. The Cape is high and irregular, with several mountains behind it, on which are many vertical whitish spots. Seven leagues west of Cape Frio is the entrance of the lake Saquarema.

Rio Janeiro entrance is twenty-one leagues east of Cape Frio; it is known by some islands off it, viz. Redonda, two leagues and a half S. by W. of Santa Cruz fort. It is high, round and rocky, with two rocky islets two leagues east of it, and four miles off shore is Razor Island, four leagues south of Santa Cruz fort. The entrance is also known by a remarkable break in the land, between two perpendicular and naked mountains of granite; that on the left is insulated, and has the exact form of a sugar loaf, the peak of which is 680 feet above the sea; that on the right is a mountain attached to the coast, which rises to the same height as the former, but with a gentle ascent to the summit. A small island lies in the entrance and narrows the channel to three quarters of a mile. When through this narrow entrance, a beautiful basin opens of at least 100 miles in circumference, being thirty miles deep, and ten to fifteen wide, with several small, but exuberantly fertile islands, covered with the most beautiful trees and shrubs. The shores of the basin rise in general abruptly to hills of moderate height, behind which, are other ridges, increasing in elevation till their summits are lost in the clouds.

There is reason to suppose that this vast basin was once a lake, separated from the sea by a narrow bank, the less solid parts of which have been worn away, and left only the rocky bar which now crosses the entrance from two miles within

Santa

Santa Cruz fort to the sugar loaf, with seven to ten fathoms water on it towards the east, while at its west extremity the rocks are above water. Both within and without this bar the depth is eighteen fathoms.

All parts of the port afford anchorage to the most numerous fleets, and with the greatest facility of access and egress, by means of the sea and land breezes, which are regular. Within the harbour it is usually calm from midnight till sun-rise, when a land wind springs up and lasts till noon, which ships must take advantage of to run out. When this wind dies away, a calm succeeds and lasts till two o'clock, when the sea breeze sets in, and brings in the ships which are in the offing. The sea breeze drives a great quantity of water into the port, which, when the breeze ceases, rushes out again with great rapidity, setting right on Santa Cruz point, which is steep to, so that with little wind, ships are often obliged to anchor to avoid being driven against it.

The entrance of the port is defended by the fort of Santa Cruz. The height of the guns above the sea is twenty-four to thirty feet, and it has twenty-three on the south, thirty-three on the west, and the same number on the north. It is situated on the lowest part of a rock, separated from the main rock, on the east side of the entrance, already noticed, by a chasm ten to twelve feet wide; it is also flanked by batteries on the acclivity of the main rock, overlooking Santa Cruz. On the island, in the entrance of the harbour, is Fort St. Lucia, with

with twelve to sixteen guns, whose fire crosses with that of Santa Cruz.

The city of St. Sebastian, now the capital of Brasil, is situated on the west side of the port, four miles within the sugar loaf, on a square irregular promontory, three sides of which are washed by the water, and the fourth, or west, is sheltered by high mountains, covered with wood, rising close behind it. The north and south angles of the promontory are elevated rocks; the former forms in two summits, on one of which is a fortress, and on the other a fortified Benedictine convent; and on the southern angle is the Jesuits' convent, also fortified. The town extending between these two rocks occupies the east side of the promontory. Separated from the north angle of the promontory, by a narrow but deep channel, is the island Cobras (Serpent Island), on which are the principal fortifications, consisting of a square citadel on the side next the town, where the island is eighty feet high, and on which side is also the naval arsenal, where the largest ships heave down by the shore. The island descends towards the east, on which side it is defended by a wall, in some places not above eight feet high, and without a ditch. The whole works on this island mount forty-six guns, of which twenty face the S.E. commanding the usual anchorage.

The landing place at the town is at a fine quay of granite, which forms one side of a square, in the centre of which is a fountain that supplies the lower

lower part of the town and the shipping with water.

On the summit of a hill, close behind the town, is a reservoir, to which the water of several springs is conducted by canals of stone, vaulted with brick; and from this reservoir it is conducted to the town by an aqueduct, built on two tiers of arches, which crosses a deep valley between the hill and town, of which it is one of the principal ornaments.

Some of the streets are very wide, and paved on each side with blocks of granite. The houses are in general well built, of two stories, with projecting balconies from the upper one, and covered with tiles. The windows are furnished with jealousies instead of glass. The ground floor usually serves as a magazine, shop, woodhouse, or apartments for the negroes.

The population of the city before the arrival of the Royal Family was about 3,000 whites, and 4,000 people of colour and negroes.

Provisions are abundant and extremely cheap at Rio de Janeiro; the beef however is very indifferent, but the pork is excellent. Mutton is scarcely to be procured at any price. Fish and all kinds of domestic poultry are plenty and cheap, particularly turkies, and the large species of duck, called the Muscovy duck; the bread is excellent; and the fruits, especially oranges and grapes, equal to those of any part of the world.

The climate of Rio Janeiro is healthy, though in summer (November to January) the heat is often

often great; the thermometer then varying between 70° and 84°.

Isle Grande, south of Rio de Janeiro sixteen leagues, has a good harbour for ships of burden. The channel is bounded by the island Marambaya on the east; and on the west side of this island is a good watering place.

The province of San Vicente has no port or place of consequence on the coast.

The southern province of Brasil is del Rey. The most noted place within its jurisdiction is the Isle of St. Catharine, celebrated by the navigators of all nations as one of the most beautiful and fertile spots of the globe; the hills, the valleys and the plains being cloathed with orange, lemon and other fruit trees, and the ground covered with flowers and odoriferous herbs. To counterbalance these advantages, however, the climate is said to be unhealthy. The island is greatly infested by snakes, and the water by alligators. Provisions, though abundant, are not very cheap, a large hog or bullock costing ten dollars, a fowl or duck half a dollar, a turkey three quarters of a dollar, a thousand lemons a dollar and a half, 114lb. of rice five dollars, 114lb. of wheat two dollars, 32lb. of coffee two dollars, four bottles of rum half a dollar.

The town of Nostra Senora Desterro is on the narrowest part of the channel that separates the island from the main, and which is but two hundred fathoms wide. The port is good, being sheltered by some islands; the fortifications are of little consideration.

consideration. The population of the island is six thousand Portuguese, and four thousand negro slaves; the military force one thousand regulars, and three thousand militia.

North-east winds are the most prevailing here. The flood tide comes from the north and the rise is three feet.

The Rio Grande de St. Pedro forms a good port, but of difficult access from shifting sand-banks, and from a bar with but ten feet at low water, on which the sea breaks violently in bad weather. After passing the bar, the great lagoon of Patos is entered with deep water. The town is situated among sand-hills, and is defended by many forts, some of them on islands; and a large garrison is kept here, it being the principal frontier fortress of Brasil. The vast flocks of wild cattle that over-run the plains of this province are killed for their hides and tallow, 300,000 of the former being exported annually, as well as horns and horse hair, to Rio Janeiro; a hundred coasting vessels are thus employed.

Lake Merin or Meni is a great salt lagoon communicating with that of Patos.

The trade between Brasil and Portugal is confined to the ports of Grand Para, Fernambuco, Bahia and Rio de Janeiro. The general results have been given in the account of the commerce of Portugal;* it is therefore only necessary to notice

* Vol. II. page 112.

tice that the northern provinces afford sugar, coffee, cocoa, Brasil wood, indigo, pusharie,* and drugs, and the southern provinces from Rio Janeiro, hides, tallow, and the precious metals.

BUENOS AYRES.

The Spanish viceroyalty of Buenos Ayres commences on the north at the limits of Brasil; on the south its extent is undefined, the Spaniards claiming the whole of the region of Patagonia, while the other nations of Europe seem to consider this region as still unoccupied, and thence they usually limit the Spanish province to the latitude 38° near Cape St. Andre. This region was first discovered by the Spaniard de Salis, in 1515, who sailed up the great river to which he gave his name; and in 1520, Sebastian Cabot, then in the service of Spain, also visited this river and gave it the name of La Plata, from the silver objects seen with the natives, which superseded that of Salis. Cabot built a fort on the river Sarcana, one of its tributaries, and in 1535 Buenos Ayres was founded, but was again abandoned for Conception, on the idea of the gold mines being in the vicinity of this latter; but the difficulty of ascending the river caused Conception to be abandoned in its turn, and in 1581 the colonists returned to Buenos Ayres. In 1661 the

* A fruit that has the aromatic qualities of the nutmeg.

the territory was separated from the province of Paraguay, and formed into the government of Rio de la Plata; and in 1777 it was erected into a vicetoyalty, by the name of Buenos Ayres.

The Rio de la Plata is formed by the junction of a number of great rivers, of which the two principal are the Paraguay and Parana. The Paraguay is in fact the grand stream, though the Parana has usurped the pre-eminence; the former issues from a small lake in about latitude 12°, and pursues a course nearly south to its junction with the Parana in 27½. This latter river, though its course is comparatively trifling, gives its name to their combined waters from the junction to where it falls into the great estuary named Rio de la Plata, twenty leagues above Buenos Ayres and seventy-five leagues from the sea. The great river Uraguay, which has its source in the chain of mountains that border the Atlantic, in about 27°, also *debouches* at the head of the estuary.

The Parana, after its junction with the Paraguay, overflows every year in June, on a greater scale than any of the rivers of the old continent, covering whole provinces with its waters. The navigation is unimpeded to Assumption on the Paraguay four hundred leagues from the sea. The Plata is fifty leagues wide at its entrance between Cape Sta. Maria on the north, and Cape St. Anthony in the south; the country for a great extent from the banks of the river, is composed of level plains with few streams of water.

The navigation of the Plata is dangerous from

islands

islands and shoals, and also from the frequent violent winds called *Pamperos* from west to south-west. These winds blow right into all the ports on the north bank, and render them more or less unsafe. The winds also greatly affect the rise of tide, with those from S.E. to S.W., the elevation being sixteen feet, while with northerly winds it does not exceed four feet.

In sailing up the Plata along the north shore, the first object noticed is Lobos (Sea-wolves) island, three leagues S.W. of Cape Sta. Maria, and with a safe channel between them. Maldonado is on a bay formed by a neck of land, but exposed to the S.W. winds. The Isle Goretta, off the bay, is strongly fortified with four batteries mounting twenty-four pounders, which command the whole bay and the ship channel on the east, between the island and neck of land. The population of Maldonado is two thousand; it was founded in 1780.

Monte Video, founded in 1724, is twenty-six leagues from Cape Sta. Maria, is built on a peninsula strongly fortified both towards the sea and land, with a strong citadel. The town is handsome, and has fifteen to twenty thousand inhabitants. The port is extensive, but open to the southerly winds; when these winds blow, strong the depth is eighteen feet at low water, but with northerly winds only eleven feet, so that it is not safe for vessels of above nine or ten feet. On the west side of the harbour is the hill from whence it derives its name, and on which is a light-house.

The

The neighbouring country is pleasantly diversified and well watered, but totally bare of trees and without a trace of cultivation. The winter here is boisterous and cold, and the summer subject to violent thunder storms and heavy rains. A considerable quantity of hides and tallow are exported from Monte Video to Europe, and of jerked beef to the Havannah.

The colony of St. Sacrement is on the same bank above Monte Video.

Buenos Ayres, on the south bank of the Plata, received its name from its healthy situation. It is fifty leagues from Cape St. Antonio, where the river is seven leagues wide; it has no port, ships being obliged to anchor at three leagues distance and discharge their cargoes into lighters, who can only reach the town at high water through a creek. The town is built on a peninsula, the streets wide, the houses only one story with a garden to each.

The population is variously estimated, from 25 or 30,000 by Helms, to 75,000 by Sir Home Popham. The number of European Spaniards, however, do not exceed 8000. Since the trade of the Spanish colonies was liberated from the ancient restraints, that of Buenos Ayres has been considerable. The exports are, wheat and jerked beef to the Spanish West Indies and Brasil. To Europe, gold, silver, hides, tallow, sugar, Vigonia wool, tobacco, cotton, bees'-wax and drugs. Buenos Ayres is the depot for a great part of the produce of Chili, Peru and Potosi. The route to

the province on the grand ocean is performed in carts across the plains called Pampas, to Mendoza at the foot of the Andes, one month; from Mendoza the mountains are crossed by mules to St. Jago in Chili, and from St. Jago to Valparaizo in carts, fifteen days. This route is, however, only practicable in summer, the Andes being covered with snow for a great part of the year.

The commerce of Buenos Ayres has increased in proportion to the freedom that has been accorded it. Between 1714 and 1739, during the period of galleons, the average annual export was ..... 2,125,000 doll.
From 1748 to 1778, the period of register ships 4,260,479
From 1785 to 1794, free trade, 6,686,000

The detail of the commerce of 1796 is as follows:

	Ships entered from	Ships sailed for
Cadiz	35	26
Barcelona, Malaga and Alfaques	22	10
Corunna	9	11
St. Andero	5	4
Vigo	1	
Gijon	1	
Havannah	2	14
Lima	2	1
	77	66

Produce

Exports.		Imports.	
Produce of the colony	1,076,000	Spanish produce	1,705,000
Gold	1,425,000	Foreign produce	1,148,000
Silver	2,556,000		
	5,057,000		2,853,000

Exports of Produce.

874,000 ox hides,
44,000 horse hides,
240,000 fine skins,
450,000 bulls horns,
771 arobas Vigonia wool,
291 —— wool of the Guanaco,
2,549 dressed hides,
222 dozen prepared sheep skins,
2,128 quintals of beef,
340 arobas of horse hair,
3,000 quintals of copper,
40 quintals of tin,
47,000 arobas of soap and tallow.

In 1803, the exports of Buenos Ayres had increased to twelve millions of dollars, of which four millions in produce and eight in gold and silver.

In June 1806, an English force from the Cape of Good Hope entered the Plata and took possession of Buenos Ayres; the manner of its being again lost is too well known to require our entering into the particulars. Since then, a harrassing but indecisive civil war has existed between the people of Buenos Ayres and Monte Video, the latter adhering to the mother country, while the

former seek to emancipate themselves, and have recently succeeded in gaining possession of Monte Video.

It does not appear that Spain has any establishments on the Atlantic Coast south of the mouth of Rio de la Plata.

PATAGONIA.

The region at the extremity of South America named PATAGONIA, and by the Spaniards MAGELLANICA, appears, as we have already said, to be considered by Spain as *of right* belonging to her, while the other nations of Europe seem to consider the non-occupancy as a bar to this claim, and therefore look upon this region as open to their enterprizes. Upon this idea the English commenced an establishment at Falkland's Islands, which nearly produced a war with Spain.

The region of Patagonia is inhabited by a number of savage tribes, of which that named Tehuels seem to be the celebrated Patagonians of European voyagers, who have magnified them into giants. It is, however, certain, that as a race, they exceed all others in stature, the common height being six and a half to seven feet, and the tallest seven feet one inch and a quarter. They are erratic hunters and warriors, extremely expert in the management of the horse, which having been introduced by the Spaniards, now overruns South America in a wild state.

The

The topography of Patagonia affords little more than a sterile nomenclature of bays and capes. The principal bays are, St. Mathias, formed on the south by the peninsula of St. Joseph. Port St. Antonio is at the head of the bay.

The gulf of St. George is the next considerable bay to the south, to which succeeds Port Desire.

Port St. Julian is described as surrounded by a country "of a sulphurous nitrous soil, abounding with salt lakes, and destitute of tree, shrub, or fresh water, and frequented only by seals and sea birds."

The celebrated Strait of Magellan separates Patagonia from the Terra del Fuego, its entrance being between Virgin's Cape, on the north, (a steep white cliff, resembling our South Foreland,) and Cape Espiritu Santo, (Queen Charlotte's Island of the old English charts,) on the south, eight leagues distant from each other. Though the strait possesses many harbours affording wood, water, and fish, the heavy gales of wind that prevail in it, and the strength of the currents, have caused it to be entirely abandoned, as a route between the two oceans, ships finding it both more expeditious and safer to double Cape Horn: the navigation round which, formerly the terror of seamen, is not, really, more difficult or dangerous than that round the Cape of Good Hope. Westerly winds are the most prevailing in the strait, while the current usually sets from

the Atlantic. At the east entrance of the strait the tide rises thirty feet.

According to the Spanish charts, the country of TERRA DEL FUEGO consists of eleven islands, separated by navigable channels; but the only one of which any thing is accurately known, is that of St. Sebastian, whose direction is east and west. The whole of this land presents the most dreary appearance of craggy mountains, apparently doomed to an eternal winter. Here science had nearly lost one of its noblest protectors in Sir Joseph Banks, who, with his companion Dr. Solander, nearly met a terrible death from the intensity of the cold. Many of the mountains are volcanoes, which vomit flames and pumice stone, the latter of which is often found floating on the sea.

Amidst this general scene of desolation are, however, found vallies with verdure, and the trees on the sides of the hills prove, that organized existence is not quite extinct. The natives of this region appear to resemble the Esquimaux at the opposite extremity of the continent, being of low stature, with broad flat faces and cheeks, and flat noses. Their cloathing is composed of the skins of seals; and their dwellings are miserable conical huts. If not habitually cannibals, it would appear that the eating human flesh has no horror for them, for of seventeen of the

the crew of L'Hermites ship killed by them, they were seen to devour two. Their common food, like that of the New Hollanders, is the shell fish they collect on the beaches.

The island named STATEN LAND by the Dutch discoverers, is separated from Terra del Fuego by Strait le Maire, which is about five leagues long and nearly the same breadth. The tides set through this channel with great rapidity, but it has no dangers. On both shores are some good ports, where wood, water, fish, seals, and sea birds may be procured in abundance. The best of these ports is that of Good Success, on the Terra del Fuego shore.

CAPE HORN is a point of land at the south extremity of an island forming one of a group, called Hermit's Islands.

The FALKLAND ISLANDS have received various names from the navigators who have visited them. The most ancient seem to be those of Sebaldes Wert, and the New Island of St. Louis. They are also supposed to be the Pepys Land of Cowley (1684,) and in 1594 Sir Richard Hawkins named them Virginia and Maiden Land, in honour of Queen Elizabeth. In 1689 Captain Strong gave the name of Falkland Channel to the strait between the two largest islands, and this name has been extended to the whole group by the English. In 1706 they were visited by some French from St. Maloes, whence the name of *Malouines* and *Malvinas*, given them by the French and Spaniards. In 1721 Roggewein

named them South Belgia. Their barren and inhospitable wastes offering no inducement to our colonization, they were entirely neglected until 1763, when, the French government sanctioning their occupation, Bougainville, afterwards known for his voyage of discovery, assisted by some of his friends, fitted out two ships at St. Malo, and at their private expense conveyed to these islands eighty Acadians, obliged to quit that colony on its surrender to England. Wood was procured from the Strait of Magellan to construct dwellings, and a fort of clay was erected. European grains were sown and found to succeed; and no doubt was entertained of the multiplication of cattle. The court of Spain, however, claiming the islands, the French establishment, after it had existed two years and amounted to 150 individuals, was withdrawn, Spain refunding the expenses of the speculators. In 1764 the English also took possession of these islands, and formed a settlement at Port Egmont, which was continued at the risk of a war until 1774, when being found totally useless, the islands were abandoned to Spain, who we believe has made no use of them, although, according to Alcedo, she sends convicts thither.

These islands are 100 leagues distant from the coast of Patagonia, between the latitudes 51° and 52° S. There are three considerable islands and numerous rocky islets, all equally bleak and desolate, presenting barren shores and naked tops to the mountains, with no other vegetation than heath

and

and grass. In the low grounds, a skin of peat, two feet deep, covers a bed of stone or slate. Two berries were the only fruits met with, one the size of the mulberry, and the other of the currant, both growing on creeping plants.

Wolves and foxes are the only quadrupeds, and the former have the peculiar habitude of earthing themselves like the latter. Seals and sea birds are innumerable.

The few advantages of these islands are their numerous excellent harbours, a climate temperate and healthy, the running waters, which are abundant, never freezing, and the snow only laying on the summits of the hills for two months. Though the islands have no wood, there is no want of fuel, the peat affording it in abundance; and besides, large quantities of drift wood are brought to the coasts, supposed from the Strait of Magellan.

The isles of Diego Ramires are a group of great barren rocks, ten leagues south of Cape Horn. The channel between is perfectly safe.

Having doubled Cape Horn, and ascending the west coast of America, we first meet the Christmas Sound of Cook, or the Gulf of Christmas of the Spaniards, in which is the excellent harbour of Port Clarke, affording wood and water. Cape Desolation, further north, indicates by its name, that

that the two extremities of the continent are equally dreary and barren.* Passing the entrance of the Strait of Magellan, of which Cape Pillar is the south point and Cape Victory the north, we find a coast lined with islands grouped into numerous archipelagos, all rocky and inhospitable; the most considerable are the Madre de Dios and Campana, between which is the entrance of the Gulf of the Holy Trinity, in which is the good port of St. Barbara.

The Gulf of Penas is between Campana Island on the south, and the peninsula of Tres Montes on the north. Near the island of Ayantan, in 47° 42′, the Wager one of Admiral Anson's squadron was run in shore to prevent her foundering.

The Gulf of Chonos is between the peninsula of Tres Montes and the Great Isle of Chiloe. The main land is here broken, rugged, and apparently unsusceptible of cultivation. The Anna Pink harbour, named after one of Anson's victuallers, is a secure port for the largest ships.

PROVINCE OF CHILOE.

The Archipelago of Chiloe, and the neighbouring coasts of the continent, form a province under the Spanish domination, extending on the sea coast from Point Capitanes, on the continent, in 41° 30′ to Point Quilan, the south-west point of Chiloe island in 43° 42′.

* Cape Desolation of Greenland.

The islands of this archipelago are upwards of an hundred in number, but the Great Isle of Chiloe is alone of any considerable size, and twenty only are inhabited. The whole appear to have been formed by convulsions of nature, which have broken the continent to pieces, being generally rugged masses of rock, separated by narrow and deep channels, the navigation of which is rendered dangerous by sunken rocks and violent currents. Most of the islands rise perpendicularly from the water, and are so rocky that the proportion of soil capable of cultivation is very small; and this little, owing to the unfavourable climate,* but still more to the idleness of the inhabitants and their very imperfect agriculture, is not cultivated to the greatest advantage. Hence the quantities raised of wheat, oats, French beans, and potatoes, which constitute the permanent vegetable food, are not sufficient for the consumption.

The only cultivated fruits are several varieties of the apple, and strawberries. The most common trees and with which the hills are in general covered, are the cedar, oak, walnut, plumb, cypress, cinnamon, laurel, orange, the *pelu*, *senui*, *meter*, and *meli*. A kind of rattan grows spontaneously, of which the natives make their cordage, and which is also employed in roofing their habitations. The archipelago has neither beast of prey nor venemous reptiles.

The climate is humid and stormy; but not unhealthy.

* The heavy rains in autumn render it necessary to cut the corn before it is ripe, and dry it in the sun or by the fire.

healthy. The winter is not sufficiently cold to permit the snow to lay on the ground, but this season is extremely wet, with heavy gales from N.N.E. and N.N.W.; southerly winds on the contrary are accompanied with fair weather. The *traversia* is a short storm from the east. The Aurora Australis is occasionally seen here. In midsummer the heat is great, but the sensation is moderated by sea breezes which blow pretty regularly from ten to three o'clock.

The population of the province does not exceed 15,000 Creole Spaniards, and 11,000 Indians, distributed in three towns and fifty-one villages, none of the latter containing more than twenty-five families, and many only four or five. The Creole Spaniards and the Indians form the only two classes, there being no mixed breed. The former are ignorant, lazy, and wretchedly poor, yet so proud, that though very few are able to purchase shoes and stockings, they consider the Indians with the utmost contempt, and instead of endeavouring to meliorate their situation by their assistance, they prefer cultivating with their own hands a spot of ground barely sufficient to feed their families. The Indians are equally idle, but without any haughtiness. Their greatest riches does not exceed a small plantation, thirty to forty sheep, and as many hogs. The men, besides their agricultural labour, and the procuring cedar planks to pay their tribute, are employed in fishing, the sea affording them the greatest part of their daily food, and the overplus is dried. Whales often

run

are aground in the channels of the island, in pursuit of the shoals of sardines, and their blubber is converted into oil. The women's employments are making mats and coarse linen, and woollen cloths.

The exports from the province are, first, timber, and chiefly cedar planks, in which the Indians pay their tribute of four planks a head. These are mostly procured from the continent, at the foot of the Cordilleras, and as they are split instead of being sawed, a vast waste of timber must take place to procure the 50 to 60,000 which are sent to Lima annually; they are obliged to be four varas long, seven to ten inches broad, and half an inch thick. Some walnut wood for ships' planks and boats' oars, is also sent to Lima. The second object of export is cured hams, the archipelago abounding in hogs. The whole trade occupies only three or four small vessels, which arrive once a year from Lima, at San Carlos, and on their arrival a fair is held, at which the Indians barter their merchandize for the objects they want, for there is no money in circulation except what is paid to the officers of government and the regular troops. These latter consist of only fifty-three dragoons, fifty-three infantry, and thirty-three artillery, stationed in the forts of St. Carlos, Chacao, Calbuco, and Aqui. A militia of the Spanish inhabitants, amounting to 1669 individuals, completes the armed force of the province.

The great isle of Chiloe is about forty leagues long, N. and S., and from ten to thirteen leagues broad.

broad. It is separated from the continent on the N. by the Boca de Chiloe, or channel of Chacao, only one league wide at its entrance. On the south it has the Gulf of Chonos, and on the west, between it and the main, it forms several gulfs.

The west coast of the island is straight, having no indentation of any consequence, and only a few insignificant rivers. The east coast which faces the continent is more irregular, and nearly in the middle forms a deep gulf. The island contains two towns and thirty-eight villages, principally on the north and east sides, there being but one village on the west coast; and the interior is so mountainous and barren that it is entirely uninhabited.

Until 1768, the Port of Chacao on the NE. end of the island, was the principal place, but the difficulty of the navigation to it caused it to be deserted for the port of St. Carlos, on the Bahia de Raye, on the NW. end, the access to which is safe, and it is now the only port visited by the annual vessels from Peru. The city of San Carlos is the chief place, and contains about two hundred wooden houses of the Spaniards, and some Indian huts, scattered without regularity. The town named St. Antonio de Chacao, now consists only of the church, a missionary house, and some Indian huts.

Castro, on the east side of the island, has a good port, but from the difficult navigation is never visited.

The other islands are insignificant with respect to

to it, when compared with the Great Island. The largest are Achao, or Quinchau, and Lemui. None of the others are more than from one to three leagues in circumference. Of the villages on these islands, that of Calbuco is the most considerable, consisting of twenty straw houses, inhabited by Spaniards, and defended by a fort. The village of St. Maria of Achao has eighteen straw houses of Spaniards. All the others are of still less consequence.

There are three villages on the main, *viz.* 1. Carelmapu, on the N. shore of the Boca de Chiloe, which formerly had a good port, but is now so filled up, as to admit only canoes. 2. Maullin, on an arm of the sea, called the Boca de Mettemuir, north of the Boca de Chiloe. It has a fort with four guns, fourteen straw houses, and a church of the same material. 3. Astillero, on the north shore of the Boca de Chiloe, and nearly surrounded by water, contains 200 houses, of wood and straw; but which are only inhabited for a short time at Easter, and at the Feast of St. James, the patron of the Indians. During the rest of the year both Spaniards and Indians live in their fishing huts. The church of Astillero, though of wood, is the handsomest of the province.

CHILI.

The kingdom of CHILI extends from the Archipelago of Chiloe to the desert of Atacama, or from

latitude

latitude 41° to 26°, forming a narrow slip between the Andes and the sea, no where above forty-five leagues broad.

This country was first visited by Diego Almagro, the companion of Pizarro, after the conquest of Peru; and in 1541 Baldivia, its first city, was founded. The Spaniards, however, have never been able to conquer the whole of this region; although the attempt has cost them more blood and treasure than all the rest of America; and they have finally been obliged to leave the Indians in possession of all the tract from the Biobio river to the south, with the exception of the fortress of Baldivia. By the recent revolution Chili has entirely thrown off the dominion of the mother country, and is now governed by Creole magistrates.

The rivulets which descend from the Andes run through fine vallies, in which the climate resembles that of Spain, and where are produced the fruits of Europe, as well as of the tropics. The hills are covered with the finest timber trees, and are inhabited by deer and *vicunas*. The rivers abound with trout and eels. Fish is also extremely abundant on the coast, the commonest kinds being congers, soles, cod, smaller but more delicious than that of Newfoundland. Tunny fish also arrive periodically. Ambergris is frequently found on the shores. The wind is generally from the S. W. while the sun is in the southern tropic, and is cold and dry. The north and north-west winds, which prevail in the opposite season, bring heat and rain.

The

The trade of Chili, by sea, is with Peru and Europe, by the ports of Conception, Valparaizo, and Coquimbo. To Peru are exported 150 to 200,000 bushels of wheat, 700,000 hides, 120,000 quintals of tallow, jerked beef, wine, raisins, almonds, and walnuts; hemp, horses, timber, and some copper. The imports are cloths, sugar, cacao, rice, and salt. Valdivia having nothing to export, was formerly only visited by two ships a year, one from Valparaizo, with provisions for the garrison, and the other from Callao, with the pay of the troops. It has latterly been declared a free port. The trade with Peru is in favour of Chili, and employs twenty to thirty ships of 500 to 600 tons.

Chili was long debarred all direct communication with Old Spain, the Register ships being obliged to proceed to Peru, from whence Chili procured the manufactures of Europe: latterly she has received them direct from Spain, and gives in return silver, copper, Vigonia wool, and tanned leather.

The topography of the coasts of Chili is little interesting; it having but few ports, and still fewer towns. Baldivia, or Valdivia, on the Mapocha, in 1807 had 40,000 inhabitants. Its bay is well sheltered by two points of land, and the river admits vessels of burden.

Mocha Island is high, three or four leagues long, and inhabited by Indians, who cultivate wheat, Indian corn, and fruits. Lavapie Bay is sheltered on the west by the island of St. Mary; but is open to the north and north-west.

Bio-bio River, one of the most considerable of

Chili, has several Spanish forts on its banks to keep the Indians in check; its banks abound with cedar for building.

The city of Conception, formerly the capital of Chili, founded by Valdivia, in 1550, is a mean place, but with a good port, within an island, forming two channels, both safe.

Valparaizo (the Valley of Paradise) is a town of low houses, built thus on account of the frequent earthquakes. Its bay is safe in summer, when southerly winds prevail; but in winter the northerly winds blow into it, being open from N.N.W. to N.N.E. The anchorage for ships is in ten or twelve fathoms, one quarter of a mile from the town; but small vessels make fast to rings fixed in piles close to the shore, where there is eight fathoms depth. Its only trade is with Lima.

The port of Quintero is sheltered on the south, but open to the north.

Coquimbo la Serena, in a beautiful valley, four miles from the sea, is inhabited by about 500 Spanish families. Its streets are drawn in right lines, and the houses separated by large gardens. In the vicinity is a rich copper mine, the produce of which, as well as wine, oil, hides, &c. are sent to Lima by about five ships a year. The bay of Coquimbo is sheltered on the south by the Paxaros, or Bird Islands, three or four in number, between which and the point of the main is a safe channel for ships. Another group of rocky islands, seven or eight leagues N.W. of Coquimbo, are also called Paxaros.

Cape

Cape Tres Montes is the extremity of some high mountains, terminating on the coast in three hummocks. Salado Bay is exposed to the north, and is only visited by coasters for salt.

PERU.

During the operations against the Mexicans, the Spaniards learned the existence of the empire of PERU; and the fame of its wealth rousing their unquenched cupidity, three private individuals, with no other resources than their own means, commenced its conquest in 1530. The chief of this triumvirate was Francis Pizarro, the second Almagro, and the third was a priest named Luques. The forces they were able to raise for the conquest of this populous empire amounted to no more than thirty-six cavalry and 144 infantry; but, unlike the Mexicans, the Peruvians were a timid and unwarlike race, which together with their civil dissensions, made them an easy conquest, and in ten years their country was divided between the followers of Pizarro. In 1543, the first Spanish viceroy appeared in Peru.

The kingdom of PERU has for limits on the south a desert tract which separates it from Chili, and on the north the river Guayaquil is the boundary. The name of Peru is said to be either from *Beru*, one of its rivers, or *Peiu*, one of its promontories. A ridge of hills lines the coast at the distance of twenty five to thirty leagues, whose ramifications stretch

quite to the sea, forming between, generally sterile vallies and plains, except where they are fertilized by rivers, which are however few and inconsiderable. On the coast, between 5° and 15° S. rain is almost unknown, but there are frequent dense fogs and heavy dews, which, together with the rivulets that descend through the ravines, named *quebradas*, nourish vegetation. Thunder and storms are nearly as seldom experienced as rain, and the winds blow constantly from the south.

The whole coast of Peru has not a single harbour in the strict sense of the word, the anchorage being all in bays or roads more or less open and insecure.

The southern province of Atacama has no other establishment than some Indian villages of fishermen, who take the species of cod called *tolla*, and salt it for the markets of the interior. The principal of these fishing stations are Atacama and Copija, the latter, containing fifty Indian families, is on the most barren part of the coast, but is the nearest place of embarkation to Potosi.

The Loa river, the most considerable of the coast, separates the provinces of Atacama and Arica. This latter province is mountainous; its only river of any consideration is the Locumba, which, after forming a lake, issues from it with a rapid stream. Pica bay, six leagues north of Iquaina island, is an open road, but with good anchorage, near a little river. Tarapaca is five leagues farther north, and before it is Pavilion Island, named

from

from its resemblance to a tent; on the main within it is a rivulet where ships may water.

Arica, the chief establishment of the province, is in a pleasant valley, and was formerly a considerable place, but was ruined by an earthquake in 1605, and sacked by the English Buccaneers in 1680, since when it has been neglected. Its port or road is visited by coasters. Quiaca road is ten leagues north of Aripa. Ylo or Hilo is a road fit only for small vessels.

The province of Arequipo has but one indifferent port and two creeks for boats; the former at the mouth of Tamba River is named Port of Yerba-Buena, (fine grass) this river running through a pleasant valley. Chili River issues from a cavity in a great rock. The province exports some wine.

The province of Camana has only some fishing establishments, *viz.* Quilca, on a creek with an island before it; the volcano of Arequipo bears N.E. from it. Camana, the chief place, is a Spanish establishment on the Majes, two leagues from the sea, and beautifully situated; it has 1,500 inhabitants. Ocona, a fishing village at the mouth of a river of the same name.

Yca province has the road of Masca, with good anchorage, but neither wood or water. St. Geronymo d'Yca, the principal place, has 6,000 inhabitants; it has some glass manufactures, and exports wine to Callao and Panama. The coast of this province is very barren. Palfa is an insignificant road before the mouth of the Rio Grande, and Quemada, though a good anchorage, is difficult of access with

the prevailing winds, and, besides, it affords neither wood nor water. N.W. of the road is Lobos Island, with anchorage under its lee. Pisca Bay is the best road in this province, being sheltered from the prevailing south winds by the Island Ballotta. The insignificant town of Pisca is half a mile from the beach.

The province of Canete has no port, and only some Indian fishing villages.

Callao, the port of Lima, is at the mouth of the river of this latter; it is built on a low flat point land, is strongly fortified, and its road, which is the best of Peru, is protected by several batteries. The frequency of earthquakes, and rain being unknown, have caused the houses to be built of the slightest materials. The earthquake of 1746, which destroyed three-fourths of Lima, was still more fatal at Callao; of a population of 3,000, one man alone being left alive. The road of Callao affords good anchorage all over it, and is sheltered by many desert islands.

Arnedo, or Chançay, one of the largest coast towns of Peru, is situated in a fine valley a league and a half north of the river Passamayo; it contains 300 houses of brick and reeds, and exports corn and cattle. Huaura, on a tolerably large river, has 200 houses; off it are many desert islands, the resort of innumerable sea-birds, whose dung is sought for as a manure. There are also many natural salt pans on this part of the coast, which give name to Salinas road, tolerably sheltered, but affording neither wood nor water.

The

The province of Santa has the town of Baranca, of sixty houses, at the mouth of a river; in the vicinity, and a league from the sea, on a hill, are the ruins of a Peruvian fortification, consisting of an oblong square, enclosed by three mud walls within each other, the outer walls being 300 yards long and 200 broad.

The port of Santa is on the river of the same name, which empties itself by five mouths, all of sufficient depth to admit sea-vessels; the current runs out four miles an hour. The village of Santa Maria de Padilla, at the mouth of the river, has not above fifty families of Indians and Mulattoes; it is nevertheless the chief place of the province. It was sacked in 1685 by the English Buccaneers.

The province of Truxillo is one of the most fertile of Peru. Its chief town, of the same name, is built on a sandy soil half a league from the shore. Its houses of brick have but one story in consequence of the earthquakes, but are well built, with porticoes and balconies; its population is 10,000. The road is called the bay of Guanchaco, and is known by being under the highest peaks of the ridge of mountains that lines the coast. The river Mocho empties itself a league from the town.

In the province of Sana, the only places of any consideration are the Bays of Malebrigo and Chereppe, both exposed to the prevailing S.W. winds. St. Jago de Miraflores, or Sava, the chief place, is at the mouth of a little river, and is only inhabited by a few beggarly nobles, having been deserted since it was almost ruined in 1728 by an inunda-

tion, which the inhabitants considered as a judgment for having sold the bones of one of their archbishops to the monks of Lima!

The isles of Lobos de Mar, or Barlevento (windward sea wolves) are two great rocks, separated by a boat channel, frequented by seals, sixteen leagues from the main. Between them is a little road where a ship may refit. Lobos de Terre, or Sotovento, (leeward) is near the main, and two leagues in circuit.

The province of Piura is the northernmost of Peru. Its principal places are Sechura, a league from the sea, consisting of 200 houses of reeds, inhabited solely by Indian fishermen. The Bay of Sechura runs in eleven leagues, and is limited on the south by Cape Aguja, or Needle Cape.

Paita is the best road of this province, and here ships from the north bound to Callao usually touch to land their passengers, who prefer the journey by land to the tedious passage by sea, in consequence of the constant southerly winds. The town of Paita is built on a barren sand, without fresh water, which is brought from Colan on the north. It has a small castle on an elevation; it was burned by Anson in 1741.

Near Amostape, on this coast, is a well of mineral pitch.

The Gulf of Guayaquil is the only considerable indentation on the west coast of America from the Archipelago of Chiloe. Its south limit is Cape Blanco, and its north point St. Helena, distant from each other forty-five leagues.

The commerce of Peru has greatly increased since

since the suppression of the galleons; during whose existence the trade was carried on by a few great capitalists, who regulated the markets at pleasure. Under the system of free trade with Old Spain, commerce being divided into a number of small branches, employs a greater number of merchants, and though the profits are not so exorbitant as formerly, they are more widely disseminated.

Of the productions of Peru Proper, besides the precious metals, the exports are sugar, Vigonia wool, Peruvian bark; besides which, it re-exports the objects procured from Chili, and from the north. The trade with Chili and the Archipelago of Chiloe has been already noticed. To the ports of Guayaquil and Panama, Peru exports the wines, leather, and brandy of Chili; and imports cacao, coffee, and other produce.

The ports of Realexo, Sansonate, and Guatimala, are the only ones of Mexico visited by the trading vessels of Peru. The imports are cacao, cochineal, indigo, pimento, &c.

The following are the general results, in piastres, of the trade of Peru, exclusive of Europe, in 1790.

	Imports from.	Exports to.	Balance against Peru.
Chiloe	30,000....	51,200....	21,200
Chili	458,317....	629,800....	171,483
Guayaquil & Panama	128,295....	284,460....	156,165
Realexo & Sansonate	28,350....	124,500....	96,150
	644,962	1,089,960	345,998

This

This unfavourable balance is, however, more than compensated by the trade by land with Buenos Ayres, to which the exports from Peru are

2,034,980 piastres.

and the imports only 864,790

1,170,190 favourable balance.

The port of Callao is the grand emporium of the trade of Peru, and almost the only one that has any merchant vessels, the tonnage in 1789 being 16,375; of which eight galleons of from 1,800 to 750 tons each, in all 7,450 tons; twelve government packets of 400 to 125 tons, in all 3,025; eleven merchant ships of 650 to 300, in all 5,000 tons; small craft, 900 tons. Vessels are sailed at a cheap rate in Peru, but naval science is at a very low ebb, deriving no assistance from astronomy.

The fishery on the coast of Peru is solely carried on by the Indians, who having neither industry, boats, or nets to carry it to any extent, it is consequently confined to what can be taken close to the shore, and chiefly with hook and line. The two species most commonly cured with salt for internal consumption are the *tollo*, a species of small cod, and the *manta*, or cloak fish.

THE KINGDOM OF NEW GRANADA.

On the side of the Grand Ocean, the kingdom of Quito, the province of Popayan, and others, are

are included in the New Kingdom of Granada, the River Tumbez being the boundary between Peru and Quito.

Guayaquil River is formed by several streams from the Andes, and is navigable twenty-eight leagues to Caracol, where it forms a large island; but being incumbered by shifting banks, it requires a pilot, and vessels of burden usually leave their guns at the isle of Puna, before its mouth. Its banks are generally covered with mangrove. The city of St. Jago de Guayaquil is built entirely of wood, and has 22,000 inhabitants; its streets are filthy and swarming with reptiles. It has a building place where line of battle ships have been constructed, timber abounding in the neighbourhood. It is protected by two insignificant forts. Its principal export is cacao, of which it sends 600,000 fanegas to Lima and Panama. Plata Island is four leagues S.S.W. of Cape St. Lorenzo; it is five miles long, is inaccessible on the west, but on the east has a good road and fresh water. Here Sir Francis Drake divided the dollars taken from the Spaniards, and hence it received the name of Plata.

Tacamas Bay has good anchorage within a rock, and fresh water. St Matteo, on a river, has a tolerable port, and is visited by coasters for cacao. Mira River empties itself by nine mouths, north of the island of Tamaco, which latter is one mile and a half off shore, surrounded by islets, and forming a good port on the east for small vessels.

The

The Bay of Chocho, in the province of Popayan, is only remarkable for having a communication by water with the Caribbean Sea. The River St. Juan, which falls into the bay, has its source in the same ravine as the Atrato, which *debouches* in the Gulf of Darien; and in 1788 the Spanish curate of the parish employed his parishioners to unite these two rivers by a small canal, so that, in the rainy season, canoes loaded with cacao pass from sea to sea, the distance being seventy-five leagues.

Malpelo Island is a high barren rock, visible twenty leagues, surrounded by islets; the whole occupying a space of eight or nine miles north and south.

Gorgona Island, two leagues long and one wide, is surrounded by other islands. The currents on this part of the coast run with great violence, giving name to Cape Corientes. From this cape to Port Quemada, a distance of thirty leagues, there is neither port nor river, and the shore is lined with islands and rocks.

The Gulf of Panama is limited by Point Francisco Solano on the east, and Point Mala on the west. On the east shore is the Bay of St. Miguel, which receives the River St. Mary, one of the healthiest positions in the gulf. Panama is an irregular built town at the foot of a high hill, with some poor fortifications. The port is formed by some islands two leagues and a half from the town. The principal island in the gulf is Tobago, six leagues south of the city, four miles long and

two

two broad, mountainous, but covered with fruit trees, and well watered. On the S.E. is a good harbour. The Pearl Islands are a cluster of low woody islands, with many good anchorages, formerly the rendezvous of the Buccaneers, and named from the productive pearl banks round them.

The tides in the gulf are said to ebb and flow every three hours, and to rise very high.

NEW SPAIN.

The provinces of Veragua and Costa Rica on the Pacific, have few establishments. Off the former are the islands of Quibo and Quicaras. The first is a beautiful island of moderate elevation, covered with cedar and chesnut trees, well watered, and extremely fertile. It has deer, monkeys, and other animals. On the N.E. a rivulet forms a picturesque cascade, forty yards broad and 150 feet fall. It has a port named Bueno Canal, six miles long with five fathoms depth, and the rise of tide is twelve feet. Quicaras, S.W. of Quibo, are two islands, the largest six or seven miles long; they afford cocoa-nuts. Many other islands lay along shore to the north; that named Mentuoso is covered with cocoa-palms, and is five miles in circuit; its shores are in general rocky, but on the S.E. is a sandy cove where boats may land easily.

The Gulf of Nicoya, or Salines, is in the province of Costa Rica; in it are many islands and banks

banks on which fine pearls are fished. Nicoya, at the entrance of the Coparso, has a good port, and many ships are built here.

The Gulf of Papagayo, in the province of Nicaragua, is under the volcano of Bombacheo, near the city of Granada, on the Lake Nicaragua; the volcano is cleft from top to bottom. St. Juan de Nicaragua is a port on the gulf.

Realejo is a small town surrounded by a ditch; an island before it forms two passages to its port, the S.E. being the broadest, but obstructed by shoals; that on the N.W. is free from danger, and has four fathoms depth at low water. The town is on the east bank of a river, three leagues above the island, and ten leagues N.W. of New Leon, with which it almost communicates by a creek. Realejo exports pitch, tar, and cordage, and builds vessels. The volcano named *Del Veja* lays N.E. of the town.

Several parts of the coasts of New Spain are subject to violent storms. On the coasts of Nicaragua and Guatimala, S.W. gales are frequent in August and September; they are accompanied by thunder and excessive rains, and hence are named *tapay aguas*. These same gales blowing in July and August on the coast of Mexico, render the ports of Acpulco and St. Blas of dangerous access. On these coasts, in the fine season from October to May, strong gales from N.E. and N.N.E. are common, accompanied with clear dry weather.

In the province of Guatimala is St. Salvador, a town

a town of 5,000 inhabitants, twelve miles up a river; the Bay of Sansonate, or Trinidad, has a small establishment. The city of St. Jago de Guatimala is built at the foot of a volcano, which has caused it to be several times destroyed by earthquakes, the last of which in 1775 totally annihilated it. The River Vaccas runs through it: the cacao of its territory is celebrated, and it besides exports cochineal.

The province of Oaxaca* succeeds to Guatimala. It is one of the most healthy and improved tracts of New Spain. Its southern part is washed by the Gulf of Tehuantepec, named from a town composed of three Indian villages, on a creek, crossed by a bar.

In Mexico Proper, the chief places are Acapulco, celebrated during the epoch of the galleons. It is now a wretched place inhabited by a dozen Spanish, and about forty families of Chinese, mulattos, and negroes. It is defended by the castle of St. Diego, on a point of land, mounting several twenty-four pounders. Its port is the only one that deserves the name of harbour on this coast, being a beautiful basin ten miles long and three broad, surrounded by volcanic mountains, and having the appearance of being formed by an earthquake. An island before it forms two channels. The high shores preventing the circulation

* This province is considered as the most southerly of the viceroyalty of New Spain, on the Grand Ocean; the province of Guatimala, including Veragua and Costa Rica, being governed by a captain-general, subject, however, in certain respects, to the viceroy of New Spain.

lation of the air, render it very unhealthy. The chief trade is still with Manilla by the annual galleon, of which we have already given a detailed account.*

Between Acapulco and Cape Corientes there is no port or establishment worthy of notice.

The River Zacatulo, which bounds the intendancy of Mexico on the north, is of considerable size.

The only place of any note in the intendancy of Guadalaxara is St. Blas, at the mouth of the St. Jago, a large river affording an extended inland navigation, but its mouth crossed by a bar with twelve feet only at high water springs. At St. Blas is the principal administration of marine of the vice-royalty of New Spain, on the Grand Ocean. A battery of fifteen guns defends the port.

North of St. Blas are the Three Maria Islands. The middle, named St. George, is nine miles long, and has good anchorage on the east; St. John's, the northernmost, is thirteen miles long. These islands are elevated, covered with wood, particularly lignum-vitæ. Between them and the main are some small islands named Isabellas.

The GULF of CALIFORNIA, SEA of CORTES, or VERMILION SEA, formed by the peninsula of California,

* Vol. III. page 496.

fornia on the west, and the continent on the east, is 300 leagues long and fifty to twenty broad. The only knowledge we have of it is, that the east coast is lined by shoals, and is high and broken to the latitude 27½°. The only places on this coast (the *Intendance* of Sonoro) are the port of Guitivas, at the mouth of the considerable River Mayo; and that of Guayma at the mouth of the Yaqui. This last port is surrounded by elevated hills, and before the entrance is Pelican Island, which is left on the right hand in entering. Ships anchor in five fathoms. The small Spanish village is ten miles up the river.

The Colorado, a considerable river, falls into the head of the Gulf of California.

The peninsula of California, or OLD CALIFORNIA, is 300 leagues long and from ten to forty broad. It is traversed longitudinally by a ridge of mountains, some of which appear to be volcanic, and have an elevation of 5,000 feet. These mountains are in general stony, but abound with wild animals of the deer, and other species. The soil in the lower ground is sandy and barren, being very scantily watered and rain very unfrequent. The coasts are abundant in fish, and whales of the spermaceti kind frequently chase vast shoals of pilchards on the shore. The most beautiful shells are washed up on the west coast, and it has also many rich pearl banks, the fishing of which was formerly a source of riches, but from the avidity and bad management of the Spaniards, Indians

can no longer be found to fish. The pearls are of a fine water and size, but ill shaped.

Cape St. Lucar, the south point of the peninsula, is a lofty promontory, terminating the *Sierra* that runs through it, and may be seen twenty leagues.

On the east coast, the only Spanish establishments are the *presidios** of Loretto, Santa Anna, and St. Joseph. On the west coast there is yet no European settlement.

The province of NEW CALIFORNIA extends from the Bay of Todos Santos in 32° 0′ to Cape Mendocino. The coasts appear to be fertile and well watered, with a temperate climate, but subject to fogs. Vines and olives are cultivated to the latitude 37°. The Spaniards first began to form settlements on this coast in 1763, but their system of colonization being confined to preaching the gospel to the Indians, this extensive region has hitherto been of no other value than providing for a few lazy Monks, whose superstitions are scarcely more reasonable than the paganism of the Indians, and have not the same excuse of untaught savageness. In the year 1806, the *missions* and *presidios* amounted to eighteen, in the following succession from south to north: San Louis Rey, 600 Indians; San Juan, 1,000 Indians; San Gabriel, 1,050 Indians; San Fernando, 600 Indians; San Buenaventura, 950 Indians; Santa Barbara, 1,100 Indians; Cata-

* An establishment of a few soldiers and three or four monks.

ception, 1,000 Indians; San Luis Obispo, 700 Indians; San Miguel, 600 Indians; Soledad, 570 Indians; San Antonio, 1,050 Indians; San Carlos de Monterey, the capital of California; San Juan Baptista, 960 Indians; Santa Cruz, 440 Indians; Santa Clara, 1,300 Indians; San Jose, 630 Indians; San Francisco, 620 Indians.

The total number of whites and mulattoes in these eighteen establishments does not exceed 1,300.

The bay of Monterey, the best on this coast, is very indifferent; it is limited by Point Pinos (fir tree) on the south, and Point Anno Nueva on the north, distant seven leagues. The whole bay is bordered by a sandy beach, but is entirely exposed, except round Point Pinos, where is a cove, in which a few ships may lay, with the two points of the bay interlocking to within three-quarters of a point, and this cove is, properly, the famous port of Monterey. The river of this name is an insignificant stream, four leagues N.E. of the cove.

The *Presidio* of St. Carlos is two leagues from Cape Pinos, on a sandy plain, at the edge of a marsh; it comprises an area of 300 yards by 250, surrounded by a mud-wall, against the inside of which the buildings are erected. Of these the governor's house is the best, and consists of five or six spacious apartments, floored with planks, but without glass in the windows. There is but one entrance to the *presidio* for horses and carriages, but foot passengers are admitted by several

veral small gates. At each angle is a block house overlooking the wall, calculated for the mounting swivels. The other fortifications, in 1796, were a battery of four nine-pounders, and three three-pounders, before the principal gate facing the port, and a fort *en barbette*, of eleven twelve-pounders.

Monterey is the residence of the governor of the two Californias. The garrison consists of 100 regular troops, who, together with the missionaries, are the only white inhabitants.

San Francisco, the northern establishment of the Spaniards, is an excellent port, entered between two low points, within which it expands into a large basin, with many harbours. On the south shore is the *presidio*, exactly similar to, but smaller than that of Monterey, the artillery in 1796 being only two three-pounders, and the garrison a lieutenant and thirty-five men. The three missionaries of this *presidio* seem to have made little progress in introducing the arts amongst their proselyte Indians, the making of coarse blanket stuff for their clothing being the extent of their manufacturing industry.

Four leagues north of Port San Francisco is Sir Francis Drake's Bay, open to the S. and S.E., but affording good anchorage on the south shore. The bay receives a river, but whose mouth is crossed by a bar, with a surf that renders its entrance dangerous even for boats.

Port de la Bodega is seven leagues north of Sir Francis Drake's Bay. Cape Mendocino is a promontory,

promontory, with two elevated points, ten miles asunder, the southernmost resembling Dunnose, on the Isle of Wight. Twenty leagues farther north is Port Trinidad, an open cove, but which receives a river that may be entered by boats, and wood and water are abundant. Cape Blanco, named Cape Orford by Vancouver, is a low point, covered with wood to the water's edge.

NORTH-WEST AMERICA.

The North-West Coast of America may be considered as commencing at Cape Orford or Blanco, and extends to the Icy Cape. This vast extent of coast was almost entirely unknown to Europe until the third voyage of Cook, since when it has been minutely explored to the peninsula of Alaska, by the Spaniards on the south, by the Russians on the north, by the English and American navigators, who have visited it for furs, and finally by Captain Vancouver, in search of a passage into the Atlantic. The result of these researches has been to prove, that the mountains approach close to the sea, that there is no river of any consequence except the Columbia, and that to the entrance of the Gulf of Georgia, there is not any considerable inlet, and the coast is free from islands; but from that gulf to the peninsula of Alaska, an uninterrupted chain of islands lines the coast, forming several archipe-

lagos, within which the continent is penetrated by innumerable inlets, ending generally in small streams of fresh water.

The subdivisional denominations of this region given by the English navigators seem to be generally adopted into recent maps. They are *New Albion*, by which Drake designated all the coast examined by him, from the bay that bears his name, to beyond Cape Blanco, and which name is now extended to the Columbia river. From this river the following names were given by Captain Vancouver: *New Georgia*, to Jervis Canal; *New Hanover*, from this canal, to 53½°; *New Cornwall*, to 57°; and *New Norfolk*, to Behring's Bay. From this latter, to the Frozen Ocean, is now usually denominated *Russian America*.

The north-west coast of America is inhabited by savages, who subsist by hunting and fishing. Those of the south and north appear to be different races, the latter resembling the Esquimaux, which, in fact seems to be the aboriginal race of this continent, between the latitude of 60° and the Frozen Ocean.

The natives of Nootka Sound, as described by Cook, are generally below the middle size, but full and plump, though not muscular; the face round and full; nose round at the point, with wide nostrils; eyes small and black. In general they are without beards, but this is not from the natural want of them, but from plucking them out, for some of the old men have long ones, as well

well as bushy mustachios. The hair of the head is long, black, and thick. Their complexion, when cleaned of grease and dirt, is nearly as fair as that of Europeans. The general cast of their countenances is without expression, dull, and phlegmatic. Their language is neither harsh nor gutteral, farther than proceeds from their pronouncing the K and H too forcibly: many of the words, however, have a terminating sound or syllable, which no combination of our letters can give exactly, but which, according to Captain Cook, *lxthl*, comes nearest to.

The only appearance of religious idea observed amongst them is, their having in their houses some rude images, or rather trunks of trees, with a head carved on them, and the arms and hands cut in their sides. From their bringing the skulls and various parts of human bodies half-roasted for sale, it appears too probable that they are cannibals.

Their music, which has considerable modulation, is of the grave or pathetic kind, and their songs slow and solemn. The only musical instruments seen by Captain Cook were a rattle like that of children, and a whistle an inch long, with but one hole.

They cover their bodies with red paint, and their faces with black, white, and red. Their ears are perforated both on the lobe and outer edge; and in these they wear bits of bone, quills, small shells, bits of copper or leather tassels. The cartilage of the nose is also bored, and a cord drawn through it. They wear bracelets of white beads, shells, lea-

their tassels, &c. and leather thongs, or the sinews of animals twisted round their legs above the ankles. On some occasions, they put on masks representing the heads of animals and birds.

Their common dress is a flaxen garment, which passes under the left arm and over the right shoulder, reaching below the knees, and fastened round the waist with a girdle. Over this is worn a round cloak, in shape resembling a dish cover, with a hole in the middle to receive the head, and covering the upper part of the body all round to the waist. On their heads they wear a cap of fine matting, shaped like a flower-pot, and fastened under the chin with a string. Over this general dress, which is common to both sexes, the men frequently throw the skins of bears, wolves, or sea otters, and in rainy weather they cover their shoulders with a coarse mat. Their hair is commonly worn loose, or sometimes, when they wear no cap, tied in a band on the crown of the head.

They live in villages, the houses being placed with regularity, and constructed of long broad planks resting on the edges of each other, and fastened by wythies of pine bark. The perpendicular supports are slender poles outside, to which the planks are also tied, and within side are other poles placed slanting. The height of the front of these habitations is seven feet, and the back a little more, so that the roof has a declivity. It is formed of planks laid on loose, so as to be closed to exclude the rain, or opened in fair weather to admit the light and air. The door is a hole in the side,

sides, and other holes serve as windows. Several families occupy one of these houses, in which the only separations are pieces of plank running at right angles from the sides, so that they may be compared to large stables with a double range of stalls; close to the side, in each of these partitions, is a wooden bench raised five or six inches, and covered with mats, on which the respective families sit and sleep. The middle space seems to be common to all the families, and here the fire is placed on the bare floor, and the smoke escapes through the roof and windows.

The furniture consists of a number of boxes of different sizes, containing their spare clothes, skins, masks, &c. square or oblong pails or buckets to hold water, round wooden bowls and cups, and small shallow wooden troughs, which serve as dishes and plates, baskets of twigs, and bags of matting. The nastiness of their houses is beyond that of hogsties, for they clean and smoke their fish in them, and the intestines and other filth being thrown in the middle, and never removed, produce an intolerable stench.

The chief employments of the men are fishing, and hunting land and sea animals for their food and clothing. The women make the flaxen garments, clean the fish, and collect shell fish.

They eat the flesh and fat of the porpoise, and also produce a broth from them by putting pieces into a basket with water, and throwing in hot stones till sufficiently strong. The oil of the por-

poise,

poise, and other sea animals, is used in great quantities, either alone or as sauce to their other food.

As the spring produces vegetables they become successively a part of their food, eating several roots in their raw state, and without even shaking off the soil that adheres to them.

Their weapons are bows and arrows, slings, spears, short clubs of bone, and a small stone axe, something resembling the tomahawk.

Their manufacturing and mechanic arts are more advanced than might be expected from the little progress of civilization in other respects. The cloth for their garments is made of the bark of the pine-tree, beaten into a hempy substance. The progress of weaving it, after it is thus prepared, is spreading it on a horizontal stick, which is fastened to two upright ones, making a kind of frame, before which the woman sits on her knees and knots the substance across with small plaited threads. Their woollen garments, though probably manufactured in the same manner, have the resemblance of being wove, and have different degrees of fineness to that of the finest blankets. The materials seem to be the fur of the fox and brown lynx. They also work different figures into their cloths.

The carving which covers all their wooden implements and utensils, shews also considerable ingenuity. Their masks are very exact resemblances of the animals they are intended to represent; and the whole process of their whale-fishing is sometimes painted in colours on their caps.

Their

Their canoes are formed of a single tree; the largest forty feet by seven broad, and three deep, and will carry twenty persons; from the middle towards each end they decrease in breadth, the stern terminating in a perpendicular, but the prow projects forward and curves upwards. They have no seats, are very light, and sufficiently stiff in the manner they are worked, which is by paddles, (having no sails) five feet long, with an oblong oval blade.

Their hunting and fishing implements are neatly finished, and are nets, hooks and lines, harpoons, gigs, and an instrument shaped like an oar, the edges of the blade being stuck full of sharp teeth of bone two inches long. The use of it is to stick it into the middle of the shoals of sardines and herrings, when each tooth brings up a fish. Their hooks are of bone and wood. The harpoon is composed of a piece of bone cut into barbs, in which is fixed an oval shell of the muscle. This is loosely fixed to a staff twelve to fifteen feet long, and a line of two or three feet is attached to both. The harpoon separates from the staff when it is stuck into the animal, and the shaft remains as a buoy on the water. Their lines are of leather thongs and the sinews of animals, or of the same substance as their garments.

When first visited by Captain Cook they were ignorant of fire-arms, but were in possession of iron tools, which they probably received from some traders to the East, who themselves received them from Hudson's Bay or Canada.

The

The natives of Prince William's Sound and Cook's Inlet, differ in some particulars from those of Nootka. They only paint their faces. Their dress, which is the same for both sexes, is a close frock of skins, reaching nearly to the ancles, with a hole in the upper part to admit the head, and sleeves that reach to the wrists; over this, in bad weather, they wear another frock of the intestines of the whale, which draws tight round the neck and wrists, so that no water can enter it. They have also a kind of gloves or mittens, made of the skin of the bear's paws. Many of both sexes have the under lip slit horizontally, a little below the swelling part: this incision is often two inches long, and resembles a second mouth, through which the tongue is sometimes protruded. In it they stick a flat piece of solid shell or bone, channelled on the edges to receive the edges of the slit. Others have only the lip perforated with several distinct holes, in each of which is stuck a shell.

Their baidars are of two sorts, one small and covered, the other large and open; the latter will contain twenty persons, and is formed of a framing of slender ribs covered with skins of seals. The small ones are nearly similar to the canoe of the Esquimaux. Their weapons and fishing instruments are also similar to those of these people. They have a kind of armour or jacket made of small pieces of wood, sewed together with the sinews of animals, which are as pliable as cloth,

and so close as to leave no opening for an arrow to penetrate.

These people are more cleanly both in their persons and feeding than the Nootka Indians; their language is also entirely different, and less difficult of pronunciation to unaccustomed organs.

Iron and beads were found amongst them when first visited by Cook.

The inhabitants of Kodiak and the chain of islands extending to the peninsula of Alaska, are minutely described by the Russian voyagers. Their habitations are partly under ground, the fireplace in the middle, and directly over it a hole to let out the smoak, and benches all round to sit and lie on. To each habitation is attached a small apartment, where they take vapour baths, by throwing water on red hot stones.

Their dress consists of a frock of bird skins, the feathers sometimes outside and sometimes in, close pantaloons of leather, boots of the windpipe of the sea lion, and the soles of its hide.

Their arms are bows and arrows, darts and spears pointed with stone, and often poisoned with a decoction of aconite, which gives a deadly wound. Their sole employments are fishing and hunting amphibious animals, and collecting birds' eggs. In the islands to the west the seal hunting commences in February, and the whale fishery in June. During the summer they also gather berries, and lay in a stock of the sarana root for winter. The fishing and hunting season is over in October, when they return to their habitations

on

on Kodiak; and the month of November is passed in making visits and rejoicing. Dancing, and a kind of masquerades, are their chief amusements; the former consists in twirling rapidly round, with a knife or cane in one hand and a rattle in the other; sometimes in mask, at others with their faces ridiculously painted. The dance of the women consists in hopping backward and forward on one leg, and holding a blown bladder in their hand, which they throw to the women they chuse to take their places when tired.

The first ceremony to a visitor is the presenting him with a cup of water, after which different kinds of provisions, such as whale and sea lion's flesh, fruit, berries preserved in oil, the sarana root boiled in oil, &c. are set before him, and it is considered a want of politeness not to devour the whole; but if the visitor cannot accomplish it he must take the remainder with him when he retires. While at this repast a vapour bath is prepared, to which, when over, he is conducted, and at the same time presented with a vessel of seals' oil for drink.

They believe in a Supreme Being, and in beneficent and maleficent spirits, to the latter of whom they sometimes offer human sacrifices, when slaves are always the victims. When a chief dies he is disembowelled, stuffed with moss, and interred, his favourite slaves massacred, and buried with him, together with his arrows and some provisions.

Polygamy is practised to an unlimited extent, and the only marriage ceremony is the conducting the

the parties to a vapour bath by the parents of the female, where they are left together. In case of barrenness, or even of change of inclination, the husband usually allows the wife to chuse another partner. The most prolific woman is the most honoured; and they are so fond of their children that they often breed their boys with the effeminacy of girls, that they may escape the dangers of hunting and war; in these cases they wear the female habit, are employed in female occupations, and serve the unnatural pleasures of the men.

War amongst the different tribes is perpetual; the prisoners are made slaves, the men being employed in labour, and the women sold backwards and forwards for beads and other trifles, as caprice or inclination suggest, and are very cruelly treated. Orphan children also become the slaves of those who chuse to bring them up.

The greatest man is him most successful in war, and the second the most expert hunter; for the former acquires booty and prisoners, and the latter is enriched by the produce of the chace.

Previous to the arrival of the Russians, each considerable family had a baidar capable of holding forty to fifty persons; but the Russians purchased them all, and confined them to the possession of small ones for two or three persons.

The Russians have introduced, or rather forced on them, habits of industry with which they were formerly unacquainted, particularly in the collecting provisions for winter. They seem to be reconciled to the restraints imposed on them by their

new masters, and some have even been baptized; and a Russian officer, in 1793, was married to a native woman, by whom he had several children. The Russians have also established a school where native children are taught to read and write the Russian language.

On the first arrival of the Russians, the natives opposed their establishment, but the former having surprised their women, while collecting berries, seized and kept them as hostages, for the forbearance of the men. The wives were afterwards exchanged for the daughters of the chiefs; and in 1793, 600 of these females were detained in the Russian quarters, but were allowed to visit their friends occasionally.

The Russians in 1788 had eight establishments on the coast between the latitudes 58° and 59° composed of sixteen to twenty families each, forming in the whole 462 Russians and 600 subjected Americans.

In 1790, the Russian establishment at Kodiak was composed of fifty individuals, inhabiting five houses, besides magazines, workshops, &c. They had two eighty ton galliots, mounted with cannon, and employed 600 baidars, each manned by two or three natives, and divided into three divisions, each under the direction of a single Russian. The Russians had some of their wives with them, had cultivated cabbages and potatoes, and were preparing to try whether in some establishments they were then forming on Cook's inlet; they had four cows and twelve goats, so that

that their establishments had all the appearance of a regular intention to colonize.

The Russians supply the natives with tobacco, beads, linen, and nankeen cloths, in return for the furs they procure. Provisions and seal skins are considered as general property, the latter being entirely employed in the construction and repair of the *baidars*.

The Russians of the establishment are all in the service of a company, from whom they are obliged to purchase all the articles they want, at an exorbitant rate; and as they are not allowed to collect furs on their own account, although their wages are nominally very high, their situation is by no means lucrative.

The third voyage of Captain Cook gave the first idea of the profits that might be derived from a trade for furs to the N.W. coast of America; but that navigator apprehending this coast to be too remote from Great Britain to render any speculation from thence, sufficiently beneficial to induce private adventurers to engage in it, hence the first attempts were made from China and the East-Indies; and the first vessel thus employed was a brig of only sixty tons, sent from Canton in 1784. This enterprize proving extremely profitable, the fur trade became a temporary rage, and, between 1785 and 1788, six vessels were equipped from India, one from Ostend, and four from London.

These voyages had different degrees of success,

both

both on the coast and at China, some procuring a large cargo of furs, while others found the natives exhausted by preceding vessels; and again the prices greatly varying at Canton, according to the plenty or scarcity at the moment, from thirty to 100 dollars for a prime sea otter skin.*

The skins collected by the Russians are sent to Okotsk, and from thence through Siberia by Jakutsh and Irkoutsk to Kiachta, where they are purchased by the Chinese.

In the year 1786 the Spaniards first began to collect sea otter skins at their settlements of Monterey and San Francisco, which they sent to Acapulco; from whence they were conveyed by the galleon to Manilla, and thence to China. Besides sea otter skins, the north-west coast affords beaver, martin, zibelline, river otter, ermine, foxes red and black, wolves, grey, white, and red, wolf deer, squirrel, marmotte, bear, mountain sheep, racoon, moose deer, stag, and brown lynx.

The best articles for barter with the Indians are coarse

* The sea otter is the most valuable of amphibious animals, from the beautiful fur with which it is cloathed. The greatest length is five feet. When young, the fur is coarse and of no value, but the flesh is then equal to that of a sucking pig. The fur on those arrived at maturity is black with a few white hairs, thick, soft, and two inches long, and unlike that of other animals, sticks out from the body. This animal seems to be peculiar to the N.W. coast of America, between the latitudes of 30° and 60°, and to the Aleutian Islands, and the opposite coast of Asia. The unmerciful war that has been waged against them since the arrival of Europeans on these coasts, has greatly diminished their numbers on the coast of America and on the islands, and has entirely extirpated them from Kamtschatka.

coarse woollens or blanket stuff, iron, copper, tin, glass beads, and other trifles.

From Cape Blanco to the River Columbia, the coast is moderately elevated and well cleathed with timber. The Columbia is the second, if not the greatest, river that falls into the Grand Ocean from Cape Horn to the North Cape. Its mouth between point Adam and Cape Disappointment is four miles wide, but is crossed by a bar, with four fathoms at high water. At low water there is but one narrow channel through the bar, and when the tides, which are very strong, are opposed by the wind, the sea breaks on the bar quite across.

The Columbia is formed by two rivers. One, which has properly this name, is called by the natives *Twootche-Tesse*, and flows from north to south, receiving several streams from the western side of the chain of Stony Mountains. The second is named the *Great River*, and has its source in this chain; it first flows west and then N.W. till it unites with the Columbia. Towards the sea the united waters serpentize through a channel from three to one mile and a quarter in breadth, the latter about 100 miles from its mouth, the distance ascended by Captain Vancouver's officers, to which distance it has depth for vessels of 400 tons, though it has many islands and banks,

and its mouth being filled with shoals, and entirely exposed, is a great obstacle to its utility for navigation.

The following are the *possible* navigable communications that may be executed between the two oceans by the Columbia: 1. From Hudson's Bay, by the Churchill River, which is thought to issue from the Lake Buffalos, which receives the Athapescou River, whose source is in the opposite side of the stony ridge to that of the Columbia, and by the rivers Nelson and Severn, which issue from Lake Winipeg; this latter receiving the rivers Saskashawan and Assiniboils, whose sources approach close to those of several of the confluent rivers of Columbia. 2. By the Missouri with the Athantic and Gulf of Mexico. The sources of the Missouri are only separated from those of the *Grand River* and other tributaries of the Columbia by the summits of the Stony Mountains.

Between the Columbia and Gulf of Georgia the only port is Grey's Harbour, and it is inconvenient.

Vancouver and Quadra Island is the southernmost of the chain that lines the coast. It is separated from the continent by the Gulf of Georgia, whose south entrance is probably the celebrated Strait of John de Fuca, of which Cape Flattery, of Cook, is the south point. On the west coast of the island are several good ports, discovered by the fur traders; such are Nattinat (Berkley Sound); Clayoquot (Port Cox); and the celebrated

brated Nootka * (Port Lorenzo of the Spaniards, and King George the Third's Sound, of Cook), formed by an island separated from the great island by a narrow strait.

The entrance is between two rocky points, four miles asunder, within which the sound forms a large basin running four leagues to the north, exclusive of several branches and creeks towards its head. It has also several islands forming many good ports. The shores are generally steep hills covered with various species of the pine,† except in a few spots, where the naked rock appears. Numerous rivulets of excellent water empty themselves into the coves.

The climate of the Sound is temperate, the thermometer in April rising to 60° in the day and falling only to 42° in the night. N.W. winds usually bring fair weather, and S.W. rain. Fish is abundant, the most common species herrings, pilchards, and bream, the sculpin, frost fish, a small species of cod, a variety of the hake, the elephant fish, rays, and sharks; the shell fish are crabs, sea-ears, wilks, cockles, limpits, *chamæ*, *trochi* and *turbines*. The reptiles are brown and not venemous snakes, and water lizards. The

* According to recent voyagers the native word is Yuquot, which Captain Cook, through an imperfectness in catching the native pronunciation, transformed to Nootka.

† The Canadian pine, the white cypress, the wild pine, &c. they are of a large size. The other vegetables observed by Capt. Cook were small, black alders, current, gooseberry, raspberry, and rose bushes; strawberry plants, wild leek, water-cresses, and abundance of andromeda.

land birds are crows, ravens, magpies, brown eagles, hawks, herons, the Canadian thrush, kingfisher, woodpecker, finches, wrens, and humming birds; the aquatic, quebrantahuesses, gulls, shags, cormorants, wild ducks, divers, sand-larks, sand-pipers, &c.

Captain Vancouver describes upwards of twenty ports in the Gulf of Georgia, of which the easiest of access is Port de los Angelos, or Port Discovery, on the south shore. In the Gulf are a number of islands, in general less rugged and barren than the main land, which for the most part is extremely desolate, the naked rocky mountains rising abruptly from the shores, and vast torrents from the melted snows tumbling down their sides.

The principal groups of islands between Nootka and Alaska are Queen Charlotte's Island, of considerable size, separated from the continent by a gulf eighteen leagues wide. This island rises from the sea to high mountains in the centre, the summits of which are alone naked, the sides being covered with pines, birches, willows, and hazles. This island was first seen by La Perouse, and its south point named Cape Hector. It was subsequently visited by Captain Dixon, who gave it the name of Queen Charlotte, and to the south point Cape St. James. On the west coast are many good ports visited by the fur traders, this island abounding with sea otters. Close to the continent within Queen Charlotte's Island is the archipelago of Princess Royal or Vancouver.

The Prince of Wales's Islands are a group separated

passed from Queen Charlotte's by Dixon's Sound. Port Bucarelli, of the Spaniards, is one of the sounds between them, having eleven good harbours, of which that of Santa Cruz is described as one of the most perfect in the world.

King George the Third's Archipelago succeeds to Prince of Wales's, and extends to 58½°, where this long chain terminates. Port Banks, near the south end of the archipelago, is a good harbour, as is Sitka (Guadaloupe, of the Spaniards, and Norfolk Sound, of Dixon), whose S.W. point is Cape del Engano, of the Spaniards, and Cape Edgecumbe, of Cook; the volcanic mountain on the west side of the sound is named by the former Mount St. Jacintha, and by the latter Mount Edgecumbe. The high mountains that surround the port are topped with eternal snow, but their sides are wooded. The Russians have here a settlement, named New Archangel, near which is a hot sulphurous spring.

From Cross Sound of Cook (the north entrance of the gulf that separates King George's Island from the main) the coast is free from islands, and the feet of its lofty mountains are washed by the sea. Among the most elevated summits are the Mount Fair Weather of Cook, (14,992 feet), and the Mount St. Elias of Behring, (17,850 feet), the latter being visible forty leagues at sea, and is about ten leagues inland. In a break in the mountainous ridge is Behring's Bay, Admiralty Bay of Dixon, *Yacoutat* of the natives, which runs in ten leagues.

Tschugatskish Bay (Prince William's Sound of Cook) runs in seventeen leagues, forming several good harbours. There are some islands before the sound, of which Montague (*Tatitlik* of the natives) is the most considerable, being eighteen leagues long and four broad. It is covered with large pines, small alders, rasberry and other bushes. Ginseng and snake root are also found here.

Cook's Inlet, (*Kenayskish* of the natives) is formed by a peninsula on the east, and runs in forty leagues to the N.E., with a breadth of forty leagues to four, and depth of forty to seven fathoms: it terminates in a small run of fresh water. On the west shore is a volcano. The tide in the entrance runs four miles an hour, and rises eight feet.

From Cook's Inlet the coast is lined with islands to the peninsula of Alaska, the principal of which, and only one demanding notice, is *Kihhtak* (Kodiak and Kadiak of Europeans), on which the Russians have their principal establishments. It is separated from the continent by a channel five miles broad. The west coast is mountainous, but it is covered with pines of a large size, small willows, poplars, birches, and a variety of berry bushes, as rasberries, gooseberries, &c. The Russians have attempted the cultivation of kitchen vegetables with indifferent success, the cloudy and rainy weather which occupies almost the whole year, being unfavourable to horticulture. Horned cattle, goats, sheep and hogs, and cats, have also been introduced by the Russians.

Russians. The island is subject to earthquakes. The east point of the island is the Cape Greenville of Cook, and the south point is Cape Trinity. On the east side, in the bay of Chiniatskoy, is the Russian chief establishment of Ereck Svatitsky (Three Saints.) The *town* of St. Paul consists of several good dwelling houses of wood, a general barrack, church, and magazine, for the deposit of all the furs collected, to be shipped for Okotsk.

The islands west of Kikhtak are barren uninhabited rocks of granite, the *unpronouncable* names of which we doubt not our readers will thank us for sparing them. Such are *Schoyoutch*, *Anayatchtalak*, *Satchlidock*, &c. &c. These islands are visited by the natives of Kikhtak, to hunt seals and collect sea birds' eggs.

The peninsula of Alaska, from the accounts of the Kikhtak natives, would appear to be nearly an island, for they say, that they draw their canoes across a narrow neck of land into a lake, and that from this latter, a river flows into Bristol Bay. The peninsula is composed of several volcanoes in a state of eruption.

ALEUTIAN ISLANDS.

A singularly regular circular chain of granitic and volcanic islands extends from the peninsula of Alaska towards Cape Kamtschatka, in the peninsula of that name, having all the appearance

pearance of being the remains of a granitic ridge of hills, that once united the two continents, and which we may be allowed to suppose, was broken into islands, by a sudden irruption of the Frozen Ocean, that at the same time burst through the isthmus that joined the two continents, and formed Behring's Strait. This chain has the general name of ALEUTIAN ISLANDS, from some tribes of its inhabitants, who name themselves *Aleuts*. The Russians divide them into the Fox Islands, the islands *Andreanoffski*, and the *Aleuts* proper. The principal of the chain are Unemak, separated from the promontory of Alaska by a narrow strait: it has three conical volcanos of great height. Cook found the tide running eight miles an hour between this island and Oonalashka.

Oonalashka, pronounced by the natives Nagun-alaska, and named by the Russian *Tchelliere Saposchnoï*, is the most considerable and best known of the Fox Islands. It is seventy-four miles long and twenty broad. The whole island is composed of mountains, many of which are extinct volcanos, and whose summits present a totally naked rock. The island has several fresh water lakes, and numerous rivulets abounding in salmon. The coasts are indented by deep bays, penetrating so far into the land, as in some instances nearly to unite, and dividing the island into several peninsulas.

The southern coast is bounded by high rocky cliffs; the northern one is less elevated, and in some places

places descends gradually to the sea. The vallies as well as the declivities of some of the mountains half way up, produce grasses and other plants, among which are dwarf willows and alder, the *epilobium angustifolium*, whose stems are three feet high; the arbutus, the leaves of which are a powerful diuretic, and the berries used in dying. There are also rasberries of a very large size, but watery and insipid. The lupin and sarana roots serve for food. The other common plants are those usually found in cold, moist, and barren countries, such as wild angelice, scurvy-grass, cresses, wild seneva, &c.

The only quadrupeds are different coloured foxes and mice, which burrow in the earth. The seals and sea otters which formerly resorted to this island, have almost entirely abandoned it, for the less frequented ones. The only land bird that deserves notice is the woodcock. The sea birds are those common to the northern seas.

The common fish are, cod, roach, rays and hallibut, flounder, &c. The shell fish, crabs, pearl oyster and muscle, cockles, &c.

The south side of the island is alone inhabited, and the dwellings of the natives are all on the shores of the bays. Of these habitations they only count fourteen, each composed of two or three hovels, called *jurts*, formed of drift wood and mud; the largest of them being generally fifty feet long and eighteen broad. The floors are sunk below the surface of the ground, and the roof is of drift wood, covered with moss and grass.

The

The light is admitted through small openings in the roof, which also serve for doors, the ascent and descent being by notched planks. About seven feet within the outer wall stakes are driven all round, which, while they partly support the roof, serve as partitions for the dwelling place of each family, for several families usually occupy one habitation. The spaces enclosed by these partitions are covered with mats to sleep and sit on. Every female of a family occupies a distinct division of these apartments.

The center of the habitation serves as a general receptacle of the dirt, and each apartment has its reservoir to receive the urine, which they use in dying, and to wash the grease off their hands. They procure fire by striking two flints over the down of birds, sprinkled with sulphur, and light and heat their habitations with train oil, in stone lamps, moss serving as wicks.

Their furniture consists of copper and iron pots which they get from the Russians, and in which they boil the flesh of sea animals and fish; except the cod, which they eat raw, to prevent, as they say, a disease produced by worms contained in that fish. Their water they preserve in vats of split plank, and their dry provisions in baskets, or sacks of matting. Their tools are knives and axes, which they procure from the Russians. Their weapons are darts and spears of various sizes, and pointed with lava or bone, as they are intended to be used against different animals or birds. They are thrown by means of a piece of

of board, one foot and a half long; one end of which is shaped into a handle, and in the other is fixed a bone like a nail, on which the dart is placed to be thrown.

The constructing their *baidars* is the most tedious employment of the men, it sometimes requiring a year to collect drift wood proper for their keels, which is the principal part, and usually consists of three pieces scarfed together, the whole length about twenty-one feet. To this keel they affix with fibres of whalebone, ribs of willow and alder branches, the distance asunder of the upper extremities not being above eighteen inches, and the whole is covered in with another frame, or kind of deck, which binds the baidar together, and in which there is only left one or more holes, in which the rowers sit. Both the bottom and top are covered with the skins of sea animals; and when complete, the whole does not weigh above thirty pounds. The paddles have a shovel-like blade at each end, and the rower paddles at each side alternately. They move with great velocity, overtaking, it is said, a vessel going twelve knots. If a baidar upsets, the persons in her are inevitably drowned, unless another baidar comes to their assistance. Although extremely expert in the management of these boats, and continually on the water, the Aleutians are said to be unacquainted with the art of swimming, nor do they ever bathe.

The natives of the Fox Islands are of the middle size, with a brown complexion, round visage,

visage, small nose, black eyes, long, black and coarse hair, and little or no beards on the chin, but thick mustachios.

The dress of the men and women differ but little, and is very nearly the same as that of the natives of the neighbouring continent; the men wearing a garment resembling a waggoner's frock, with a high round collar, the whole of deer or birds' skins, neatly ornamented with goats' hair, and bordered with a strip of seal skin, and a pantaloon of white skin. When they go on the water they draw over this common dress another of the entrails of animals sewed together, and then also put on trowsers and boots, made of the skin of the sea lion's neck, together with a kind of wooden helmet, ornamented with the hair of the sea lion, beads, &c.

The dress of the women, though nearly similar in shape, is much more ornamented than that of the men, being trimmed with beads and coral, birds' beaks, &c. Their stomachers are made of the skin of a bird's neck, stretched and prepared for the purpose, and highly embroidered with goats, deer, and horse hair.

The men leave their faces as nature made them, but the women ornament, or rather disfigure them, in several manners; of which one is tatowing in lines from the nostrils to the ears, and from the lip to the chin. They pierce the cartilege of the nose, and wear in it long pendants of amber, coral, and enamel: the latter of which they receive from the Russians, and the amber from the inhabitants

inhabitants of the continent. They also pierce two holes in the lower lip, in which they wear long thin bones; and round the edges of their ears they fix ornaments of blue and white enamel. The women wear no covering on the feet or head.

The occupations of the females are principally making mats, sacks, and baskets, of long grass dried, which are most delicately plaited; and in sewing their garments, which is done with the fibres of animals' sinews, the needle being the bones of fish.

The occupations of the men are fishing and hunting amphibious animals, which latter begins towards the end of October, and lasts all November. They hunt in parties, and each receives a share of the produce, according to his success or dexterity.

The favorite food of these people is the flesh of sea animals, and when this is all consumed, they subsist on shell fish, roots, and sea wort. Their winter provisions consist of dried salmon, cod, and hallibut, and roots and berries, which they collect in the autumn.

The Aleutians are governed by chiefs, called *dogoks*, and the rest of the natives are named *shatas*, or vassals.

The natives of Oonalashka, and the islands habitually frequented by the Russians, have by this intercourse become much more civilized than the other islanders. Some of them speak good Russian, and many of them have been baptized; but this ceremony is almost all they know of the Christian religion, for they have as yet received

ceived no missionaries, and Russian hunters are little calculated to instruct them, either by precept or example. The Aleutian females, also, often intermarry with the Russians, and their offspring have perfectly European complexions and features, and red hair.

In the islands not frequented by the Russians, the natives are still entirely savages; acknowledging an omnipotent and beneficent being, indeed, but paying him no kind of worship, under the idea, that he knows what is good for them better than themselves, and will grant it without their request.

Misfortunes and diseases they consider as the effect of malevolent spirits, and on these occasions have recourse to their *shamans* or priests, to exorcise the evil one, by singing, or beating on a drum. Polygamy is general, and there are no marriage ceremonies. The wives are purchased from their parents, and if the husband is dissatisfied with his partner, he can send her away, but has no right to demand his presents back. But if, on the other hand, the woman refuses to live with him, he is entitled to the return of all the articles given for her.

No man is allowed to sell his wife without her own consent, but he can transfer her to another, either for a specified time, or *in toto*, which is not unfrequent. It never happens that a woman grants her favours to another, without the consent of her husband, these kind of transfers being mere matters of profit. As in this system of manners, the man cannot always claim the children as his

own, so his power on them is much more limited than that of the mother, or even than that of the uncle by the mother's side. The children of one father, by different mothers, are not considered as brothers and sisters, and are permitted to marry; but the case is reversed with respect to those by one mother and different fathers. The distribution of property on the death of the father is regulated by the relations, who usually leave the greatest part to the widows and children, and take the rest to themselves.

It is said that, formerly, it was the custom to bury one of his servants with a chief, but this sacrifice is not now practised, his baidars, darts, and other weapons only being put into the grave. The corpse is embowelled and stuffed with hay; and those of mean persons are put into the ground or cavity of a rock without any ceremony; but the rich are laid in wooden sepulchres, into which some earth is first shaken, over which are laid grass, mats, and skins, and on these the body is preserved in the position in which they usually sit in the baidar, by leather thongs. Another mat is then laid over, and covered with another layer of earth. If the wives have an affection for him, they cut the hair off the crown of the head, and mourn for him for several days: and sometimes affection is carried so far, as to keep the corpse in the *jurt*, until the putrefaction renders it unbearable. The women also preserve the bodies of their children in this manner, until another comes into the world to supply its place, and

the coffins in which they are kept are ornamented with beaks of birds, beads, &c.

With respect to the capacities of the Aleutians, they are represented by the Russian voyagers as possessing considerable talents and a quick comprehension, learning with facility to play at cards and even chess. Among themselves they are peaceful and quiet, hospitable to strangers, free from the vice of thieving, but indolent and ungrateful. Their principal characteristic seems to be the total absence of passion or any vehement emotion, their countenances never indicating either vexation, melancholy, or joy, on any occasion whatever.

Their amusements are confined to a kind of masquerade dances, performed by men, women, and children, to the sound of a drum, which is their only musical instrument.

The population of this archipelago was, when first discovered, considerable, but is now reduced to a very insignificant remnant, not exceeding 1,100 males, including children, in the whole chain.

The other islands worthy of mention are Umnak, separated from Oonalaska by a strait two miles wide; its S.E. side presents lofty volcanic mountains covered with snow. Amochta is also a volcano.

Among the Andreoffski Islands, which form the middle of the chain, the principal are Tanaga, on which is a stupendous mass of volcanic mountains emiting smoke. The east of the island is level,

and

and has many fresh water lakes. Kanaga island has a hot sulphurous spring, issuing from the foot of an extinct volcano. Gorelloi is also a vast volcano. Amgatka, or Amtshatka, is twenty leagues long, barren and dreary.

The group of Aleuts Proper, is the westernmost of the chain; Buldyr, Agatton, and Atton, are the principal, and are all great masses of rocky mountains.

In Behring's Basin are a few scattered islands resembling those of the Aleutian chain, being mountainous and volcanic; their names are St. George, St. Paul, Transfiguration, Gore's Island, of Cook, St. Mathias, of the Russians, abounds with foxes. It is without trees, but the vallies produce grass and small plants.

North of the peninsula of Alaska is the Bristol Bay, of Cook; *Kanischatzka*, of the Russians, which receives Bristol River, according to discoveries of the Russians, issuing from a large lake. Cape Newenham is the north point of the bay, from whence the coast lays north, and is lined with shoals to Cape Stevens. Norton Sound, of Cook, *Kooinegach*, of the natives, is a deep inlet, but without any good harbour; the night tides were observed to rise two feet, but those of the day were scarcely perceptible. Cape Prince of Wales, *Kygmil*, of the natives, is the west point of America; on its south is a deep bay, which according to the account of the natives receives a large river. Cape Mulgrave and Cape Lisburn succeed to Cape Prince of Wales; and, finally,

the Icy Cape, of Cook, is still the boundary of our knowledge of the American continent. From this cape to the point arrived at by M'Kenzie, the distance is 35 degrees of longitude, which on the parallel of 70°, makes 240 leagues.

Near the west coast of America some scattered islands are claimed by the Spaniards: the most celebrated and southernmost are Juan Fernandez and Massafuero; the former is described in Anson's Voyage with nearly as great exaggeration as Tinian. By the Spaniards it is named Tierra, but was overlooked by them, and was a rendezvous of the Buccaneers until 1766 or 1767, when it received a Spanish establishment. It is twelve leagues in circuit, and presents an agreeable appearance of verdant hills and vallies. In addition to the goats left on the island by the first Spanish discoverers, and which multiplied and grew wild, they have since introduced horned cattle and sheep. They have also introduced the fruits and vegetables of Chili.

The town or village is on the N.E. on the Great or Cumberland Bay, which is sheltered from E. to N.W. by W., but in which the depth is forty fathoms half a cable's length off shore. In 1792 the village consisted of forty houses, pleasantly situated in a fine valley, between two lofty hills. The defences were a battery of loose stones, breast high, mounting five guns, within the west point of the bay, which it commands; and on the left of the town another battery of masonry, with two faces,

faces, one commanding the village and the other the anchorage, and fourteen embrasures in each, but having only six guns mounted. The military force at this time consisted only of six soldiers and forty militia.

Besides the town, there are several habitations scattered over the island.

On the west side there is neither anchorage nor landing place, the cliffs rising perpendicularly from the sea.

We need scarcely tell our readers that Juan Fernandez is supposed to be the island of Robinson Crusoe, whose story is generally thought to be founded on that of Alexander Selkirk, a seaman, left on this island by a Buccaneer ship.

Massafuera forms a triangle of seven or eight leagues in circumference; it is very mountainous, and generally covered with wood, and well watered. It has also anchorage all round, but no shelter, the shores being composed of large rocks, on which the surf breaks with such violence, particularly on the north and east sides, that landing and watering are difficult. The east side has the most pleasant appearance, having many verdant vallies, with each its rivulet, and some cascades falling into the sea. On this side is a small bay, called Enderby's Cove, where landing is safe with the wind from S.W. to W.N.W. but the S.E. blows right in. This is also the only spot of the island where a boat can be hauled on shore without risk. As the island is uninhabited, the only

refreshment it affords are wild goats, fish, and sea birds. The shores are covered with seals.

The isles of St. Ambrose and St. Felix, 200 leagues from the coast of Chili, are each five or six miles in circuit, and one league and a half from each other. St. Ambrose is a broken rock, with no other soil than a thin layer of sand, producing only a plant resembling the nettle, without fresh water, and beaten by a surf that renders landing difficult. Volcanic appearances are observed on it. St. Felix is entirely inaccessible. The only animals are seals and sea birds. Latitude of St. Ambrose 26° 17′ S. 79° 9′ W.

Clipperton Island is a great rock in 10° 27′ N. 109° 18′ W.

Cocos Island is about twelve miles in circuit, elevated and of a broken appearance, but entirely covered with wood ; the cocoa-palm being predominant, has given its name to the island. The cotton tree is also found here, and the mangrove covers the shores. Many streams of water fall in cascades over precipices into the sea. Fish is in great abundance as well as the land crab. The rise of tide is sixteen to eighteen feet, and the ebb runs four or five miles an hour to the east.

On the north end is Wafer Harbour, nearly land locked, and which receives a fine stream issuing from a lake a mile from the shore and running through a pleasant valley. Lat. 5° 27′ N. 87° 48′ W.

The Galapagos Islands are a group of thirteen or fourteen, 120 leagues distant from the coast of Quito.

Quito. Nine of them are of considerable size, the largest, named by the English Albemarle Island, being twenty leagues long and fifteen broad. They are generally well wooded and have a good soil, but are nearly devoid of fresh water, the greatest quantity being on the island named James, and is not more than sufficient to supply the wants of a single ship. The principal tree is the prickly pear, which grows to the height of fifty feet and three feet girth. In the sands of the island are found small topazes, and volcanic appearances are observed. The climate is considered fine. Among the birds are great numbers of teal.

Opposite the coast of Mexico are some islands to which Captain Colnett gave the general name of Revillagigedo, after a viceroy of Mexico; their names are Santa Rosa, Soccoro, St. Berto, and Rocca Partida.

Soccoro, the most considerable, is ninety leagues W.S.W. of Cape Corientes; it is eight leagues long and three broad, forming a vast mountain, visible thirty leagues. No running water was found on it, but it abounds in antiscorbutic plants, particularly the prickly pear, which Captain Colnett recommends to be bruised and applied to the parts affected by the scurvy. Lat. 18° 48′ N. 110° 10′ W.

The other islands have nothing worthy of notice.

ISLANDS IN THE ATLANTIC OCEAN.

THE FERRÆ Islands are a cluster of twenty-two, between the latitudes 61° 15′, and 62° 21′ N., one hundred and twenty-seven leagues from the coast of Norway, and sixty-seven leagues from the Zetland Isles. They occupy a space of sixty-seven miles north and south, and forty-five miles east and west. Their name is thought to be derived either from *fær*, a sheep, and *æ*, an island, from the number of these animals found on them by the first settlers, and which had been introduced by the Norwegian pirates, who first discovered the islands and made them their rendezvous; or from *fier*, feathers, the feathers of sea birds forming a staple article of their riches; or finally from *fær*, for distant, as relative to their position with respect to Norway.

These islands are all vast mountains of rock, generally rising in conical or angular summits of one to two thousand feet elevation, and the coasts presenting perpendicular rocky cliffs of two to three hundred feet height. The grand formation is *trap*, with *feltspar*, *glimmer*, and grains of *zeolite*: the only volcanic appearances are in basaltic columns, which cover considerable spaces. Many confused heaps of loose stones, and vast

masses of rock, scattered on the sides of the hills, seem to denote some great convulsion, by which also it would appear that many of the islands have been torn to pieces. The shores offer numerous deep caverns, the resort of seals. The mountains are only separated by very narrow glens, through which run rivulets and brooks, many of which form cascades, and are useful in turning corn mills. There are also some fresh water lakes, in which are trout and eels; and some warm springs.

The quantity of arable land is very small, the soil over the bed of rock being in general not more than a foot or two deep. Barley and rye are the only cultivated grains, and carrots and potatoes the only vegetables. The islands have no trees, though from the veins of soil they possess, and from the trunks of juniper trees found in the soil, it would appear that they were not formerly without wood. Copper ore has been found, with particles of gold, but too poor to pay the expense of working.

The climate, though very foggy, is not unhealthy. The summers are generally wet; the winters stormy but not cold, the lakes or brooks seldom freezing to any thickness, but snow falls in vast quantity. The aurora borealis is common in winter, and is even seen sometimes in August. The shores are tremendously beaten by the Atlantic waves, and the currents rush through the sounds and straits with great violence, forming whirlpools almost equal to those of the coast of Norway, one of which has the name of Maelstrom.

The

The islands are deeply indented by inlets forming eight good harbours in winter, and they have besides many roads named summer harbours.

The wild animals are only rats and mice; the domestic ones horned cattle, sheep, horses, and a few hogs, dogs, and cats. The amphibious animals are the *walrus*, and several species of the seal. Among the aquatic birds are many kinds of ducks, particularly the eider; the auk, the puffin, penguin, diver, fulmer, sheer-water, gannet, gulls, petrel, &c. The only land birds of any consideration are the quail and wild pigeon. Domestic fowls are common, but there are no turkies.

The population in 1782 was 4409 souls. The principal industrial pursuits are, cutting turf for fuel, agriculture, rearing cattle and sheep, manufacturing the wool of the latter into coarse cloths or knit jackets and stockings, to dye which they make use of *lichens*, with which the islands abound. They are also employed in catching sea birds both for their flesh and feathers, the former forming a good portion of their food, fresh or dried; and in hunting the seal for its skin and oil. The fishery, which was formerly considerable, is now reduced to barely sufficient for the consumption of the inhabitants, the fish having forsaken these coasts; the principal kinds are hollibut, cod, haddock, and sey *(gadus virens)*. Shoals of small whales, of 100 to 1000, arrive periodically, and a great number are killed for their oil as well as for food. The nett revenue from the islands paid to Denmark, is

3172 rixdollars. For the commerce, see vol. i. page 365.

The seventeen inhabited islands are:

1. Fuglœ (Bird Island), north-eastern, is eight miles in circuit, has some spots of ground producing corn, and two villages.

2. Swinœ (Hog Island), larger than Fuglœ, is composed of two hills, and nearly divided by a great bay on the east, and another on the west; one village.

3. Viderœ, three leagues long and one broad; on the east side is a cavern penetrating quite through the island, three hundred feet long, and by which a boat may pass as under the arch of a bridge; two villages.

4. Bordœ is four leagues long and three broad, is intersected by two inlets dividing it into four peninsulas; it has a good winter port named Klaksund, on the north-west, and seven villages.

5. Kunœ, eight miles long and two broad, is one steep conical hill; three villages.

6. Kelsœ, nine miles long, and one broad; four villages.

7. Osterœ, twenty miles long and ten broad, has the highest hills among the group, is indented by five sounds, and has the good winter harbour of Kongshaven on the south-west; it has two small fresh-water lakes and many basaltic columns. It contains seven churches and twenty villages or farms. Two singular *rocking stones* are seen in the sea near the island. Their length is twenty-four feet and breadth eighteen, even when

when the sea is perfectly calm, they have a sensible vibratory motion, and in storms move backwards and forwards several inches with a creaking noise: this effect is probably produced by their remaining suspended on the summits of other rocks after the clay on which they formerly rested had been washed away.

8. Stromœ, the largest of the islands, is twenty-seven miles long and seven broad. It has one town and twenty villages and farms. The former, named Thorshaven, is the only one of the islands, and is on the south-east side of the island. It is the seat of government and the centre of trade. It consists of one hundred wooden houses, with the same number of families, of whom one half are fishermen, servants, or paupers. There is a latin school, and a wooden church covered with slate. The defences are a small fort, and garrison of thirty-six men. At Kirkeboe, a village on the south end of the island, is the only stone church; and here was the ancient seat of the popish bishops. Westmanhamen, on the west side of the island, is the best harbour of the group.

9. Nolsœ (Needle Island) has its name from a perforated hill resembling the eye of a needle. It is five miles and a half long and one mile broad, contains copper ore mixed with gold, one village.

10,—11. Hestœ, and Kolter, are little islands, with a single farm each.

12. Vaagœ, has two lakes of fresh water, one of which

which is three miles long and half a mile broad; they abound in large trout; three villages.

13. Mygencæs, the western island, is small and of difficult access, so that it is only visited twice a year by the clergyman; one village. West of this island is a great rock of basaltic columns, the only resort amongst the islands of the Soland goose. It pastures sheep and oxen, whose flesh is the most esteemed of the islands.

14. Sandœ, is thirteen miles long and one mile and a half broad; it has three lakes, and five villages. It is one of the most fertile, producing excellent potatoes.

15. Skuœ, a small island, is celebrated in the annals of the islands for containing the tomb of their hero Sigismund Bristesen.

16. The Great Dimon is almost entirely inaccessible, and its inhabitants of one family, having no place to haul up a boat, have no communication with the other islands, unless when the people of the latter visit them; and the clergyman who visits the island only every summer, is obliged to be hoisted up by a rope. This island, as well as its neighbour the Little Dimon, is the grand resort of sea fowls.

17. Suderœ, the southernmost of the group, is seventeen miles long and five miles broad; has six churches and ten villages. It has many spaces covered with basaltic columns. This island has two good winter harbours.

The Monk is a great lump of rock south of Suderœ,

dence, surrounded by sunken rocks, among which the currents are violent and dangerous.

DETACHED ROCKS, ISLANDS, AND SHOALS, IN THE NORTH-ATLANTIC.

Rockal, N.W. of Ireland, resembles a haycock, lat. 57° 39′; long. 13° 30′ W.

Lion's Bank, 56° 40′; 17° 45′ W.

Atkin's Rock, 55° 15′; 11° 15′ W.

St. Paul de Pinedo, or St. Pedro, a heap of rugged rocks, without verdure, and whitened by birds' dung, without either good anchorage or landing, lat. 0° 55′ W.; 29° 14′ W.

A ledge of rocks sometimes mistaken for the Bermudas, lat. 32° 35′; 57° 38′.

The BERMUDAS Islands were first discovered by John Bermudas, a Spaniard, in 1557, but were neglected until 1609, when Sir George Sommers was wrecked on them, whence they are sometimes called the Sommer or Summer Islands. They consist of four principal islands, occupying a space of seven leagues from east to west, and three in breadth, containing about 20,000 acres of land; they are surrounded by reefs, which make them of dangerous approach, particularly on the N. W. where the reefs run off some leagues.

The climate is that of perpetual spring, but hurricanes are also frequently experienced, whence Shakspeare gives them the title of the "*vexed.*"

The

The soil is not fertile, but is covered with cedar trees, proper for the construction of sloops of war; the only cultivation is a small quantity of cotton, the inhabitants chiefly gaining a livelihood by the sea, and particularly by going to Turks Islands, Bahamas, to collect salt. The main Island is thirty-six miles long, and one to two broad, shaped like a fish-hook.

On St. George's Island is the chief settlement, containing 500 houses built of a soft stone, which is sawed like timber, but when washed with lime becomes hard. These stones are sent to the West Indies for filtering water. The harbour of St. George can only receive twenty-gun ships; the rise of tide is six feet.

St. David's Island supplies St. George with provisions. The fourth island of any size is named Somerset, besides which, there are reckoned near 400 spots of sand and rocks.

Murray's Anchorage, though exposed from N.E. to N.W. is the only port that admits a line-of-battle ship through a dangerous and narrow channel in the reef. Ships of war are watered from a cistern which receives the rain water in Tobacco Bay.

A considerable number of sloops and schooners are built here of the cedar of the islands, and employed in the trade between the West Indies and North America. The population is about 5,000 whites, and nearly the same number of blacks.

The custom-house returns of imports from this island to England, and exports, were,—

Imports.

	Imports.	Exports.
1809.....	£11,648	£34,279
1810.....	1,137	36,613

The only export of the island produce is cotton; in 1809, 21,656 lbs.; and in 1810, 9,000 lbs.

The government is similar to the West India Islands.

AZORES.

The AZORES, or WESTERN ISLANDS, are nine in number, and derive the former general name from the number of falcons observed on them by the first discoverers. They are situated between the latitude 39° 30′ and 37° 0′ N., and long. 25° 0′ and 31° 30′ W. and distant 257 leagues from Cape St. Vincent, Portugal. These islands rise from the ocean in rugged precipices, which apparently owe their origin to volcanic eruptions. The acclivities, in proportion to their distance from the sea, increase in magnitude and elevation, and in many instances rise in enormous piles, covered with naked cliffs, except where the sides are sparingly shagged with stunted trees and brushwood.

Their climate is temperate and healthy, though storms and heavy rains are frequent; but it never freezes; and the summit of Pico alone retains the snow in winter. In the vallies and plains the maximum of the thermometer is 80° and the minimum 50°.

The general productions of the islands are coffee, tobacco, corn, wine, fruits, and most European vegetables.

vegetables. The woods and high lands abound in birds of various kinds, and the coasts are well supplied with fish. They have no venomous reptiles.

These islands were discovered by the Portuguese in 1431, in which year Gonzales Velho Cabral visited St. Mary's and formed a colony on it the next year. The other islands were discovered successively till 1450. They are governed by a commandant-general, whose office lasts but three years, and whose seat of government is at Angra. Each island is subordinately governed by a *capitan mor*, and a judge. The clergy have at their head the Bishop of Angra, the only one in the islands.

St. Michael and Tercera possess the principal commerce of the islands, eighty to a hundred vessels sailing from them annually to Lisbon and Madeira with corn. St. George and Gratiosa also export some cheese and butter; and most of the islands afford wine to English and North American vessels. The imports are manufactures from Great Britain to the value of £30,000. From the United States, rice, pitch, tar, lumber, staves, iron, fish, and East India goods, in return for wine. A vessel also occasionally takes a cargo of wine to Russia, and brings back flax and iron.

Corvo, the N.W. and smallest, being four leagues in circuit, has its name from the number of crows observed on it by the first discoverers. It produces some wheat but no wine, and its only export is small quantities of salt pork. Many of the geographers of the sixteenth century drew their

first meridian through this island, because at this time the compass had no variation here.

FLORES, so named from its abounding in flowers when discovered, exports some wheat and salt pork, has no wine. It is thirty miles long and nine broad; the chief place is Santa Cruz.

FAYAL, named from the plant *Myrica Faya* growing on it in great abundance, is nine leagues long and four leagues broad; it is mountainous, and near the centre is a volcano. The principal place is Villa Horta on the S.W. side, and on the Bay of Puerto Pierra, in which one or two vessels may find good shelter, and small vessels can sometimes hove down here. There is a castle on each point of the bay, united by a stone wall, both of which command the road and town. The garrison, in 1775, consisted of a hundred men.

The island does not in reality produce wine enough for its own consumption, but the wine of Pico being brought to Villa de Horta to be exported, receives the name of Fayal wine.

This island was given by Alphonso, King of Portugal to his sister the Duchess of Burgundy, who in 1466 transferred it to Job Van Hunter, and Martin Behem, who first colonized it with a few families from the Low Countries, whence, in the old charts, the whole group received the name of the Flemish Islands.

PICO, distant from the S.E. side of Fayal three leagues, is one vast mountain, thirty miles long and ten broad. Its sides are not very steep nor rugged, and it terminates in a small cone, so re-

gular,

gular, as to have the appearance of being artificial. Its elevation is 2,700 yards. It produces no corn, but from sixteen to 24,000 pipes of wine annually, most of which is exported to the West Indies and North America. In 1775 the pipe sold for 4 to £5. Villa de Laguna is the principal place, and on the N.E. side is the town of St. Sebastian.

St. George, N.E. of Fayal, is high, ten leagues long and two broad, produces a good deal of corn and some wine, and has very large cedar trees.

Gratiosa, N.E. of St. George, ten miles long and eight broad, also producing corn and wine. Villa de Praya chief place.

Tercera, so called from being the third island in order of discovery by the Portuguese, is the second largest of the group, being sixteen leagues in circuit. Its principal production is wheat, of which it exports a considerable quantity to Lisbon, besides about ten to 15,000 boxes of oranges and lemons.

On the S.E. is the town of Angra, the residence of the Governor and Bishop of the Azores; it is built on a bay formed by two promontories projecting into the sea, like the horns of a half-moon, on each of which is a castle whose fires cross, and on the western promontory are two hills called the Brasils, which cause it to make like an island, coming from sea. The bay is open from south to east by the north, and is an unsafe anchorage. The town contained 10,000 inhabitants in 1778. Tercera has two other towns, viz. St. Sebastian and Villa Praya; the latter, situate on a fine bay, has 5,000 inhabitants.

St. Michael, eighteen leagues long, and two to five leagues broad, though covered with mountains, is one of the most fertile of the group, producing chiefly wheat and flax. It has a volcano and many mineral springs. It exports a considerable quantity of wheat to Lisbon and Madeira, besides about 80,000 boxes of oranges and lemons. It is the property of a Portuguese nobleman, to whom it is said to afford 40,000 cruzadoes of rent.

Punta del Gada, on the S.E., is the chief town, containing 12,000 inhabitants. It is built on the shore of a cove, behind which rise conical hills. It is protected by the castle of St. Blas, the principal fortification of the island, which mounts twenty-four old iron guns. The other towns are Valla Franca, on the north, and Ribeira Grande, also on the north, with 10,000 inhabitants. Its road is very bad, being filled with shoals, but east of it is the little secure port of Formosa. The military force of the island is 200 regulars, and five or 6,000 peasant militia.

St. Mary, the S.E. island, is twelve miles in circumference. It is so surrounded with rocks as to be nearly inaccessible. It produces a considerable quantity of wheat.

The Formigas, or Ants, a ledge of rocks, S.E. by E. fifteen leagues from Punta del Gada, in St. Michael's, so named from the continual motion of the sea round them, which produces extreme high breakers. One mile N.W. is another cluster of rocks,

rocks, and a third eight leagues further westward.

The population of the Azores is variously estimated. In 1778, the Duc de Chatelet gave it as follows: Corvo, 500; Flores, 2,500; Fayal, 4,000; Pico, 28,000; St. George, 30,000; Gratiosa, 4,000; St. Michael, 40,000; St. Mary, 6,000. In 1775, Capt. Cook gave the population of Terceira 20,000. Recent accounts, however, make the population of St. Michael 80,000, and the total population of the islands 210,000.

MADEIRAS.

The MADEIRA islands are two in number, Madeira Proper, and Porto Santo. They are situated between lat. 32° 22′ and 33° 10′ N. and lon. 17° 30′ and 16° 20′ W. and 150 leagues from Cape Blanco in Africa.

Madeira is sixty miles long and twenty broad, containing 407 square miles or 260,480 square acres. It is one immense mountain, at the summit of which is an excavation, supposed to be the crater of an ancient volcano, but which is now covered with grass. The quantity of lava and other volcanic matters found on the island are, however, a sufficient proof of the former existence of subterranean fires.

The various branches of this great mountain are separated by narrow glens, the sides of which are very thinly covered with soil, but are never-

theless highly cultivated. Many of them have neat villages and hamlets, and all possess rivulets of fine water.

The climate is mild and temperate, and usually recommended to pulmonary patients. The different elevations, however, afford every variety of temperature, from the scorching heat of the torrid zone, to the moderate cold of middle Europe. In January the summit of the mountain is usually covered with snow, while at Funchal the thermometer is at sixty-four. The minimum is not lower than fifty-five; the maximum (except with a S.E. wind, when it rises at times to ninety-five) does not exceed seventy-six.

The riches of Madeira consist solely in its vineyards, which are enclosed with hedges of the prickly pear, wild rose bushes, myrtle, and pomegranate. The white grape is the most generally cultivated, but there is also a red grape which gives a white wine, called *bastardo*, and another white grape which produces a reddish wine, called *tinto*, known in the English market by the name of London particular.

The quantity of wine produced annually, is estimated at an average of 25,000 pipes, of 120 gallons each, of which 15,000 are exported, viz. to England 4,500: to the East Indies 5,000: to the West Indies 3,000: to the United States, &c. 2,000. The remaining 10,000 pipes are consumed in the island. About 500 pipes of a sweet wine, called malmsey, is also made. The price of wine on the island has been gradually increasing for several

several years. In 1790 the first quality of the dry wine sold for £32. In 1804 it was risen to £45. In the former year a pipe of malmsey sold for £60.

The vegetable productions of the island, besides vines, are the eddoe root, on which the poor class chiefly subsist, and the leaves of which are given as food to the hogs. Sweet potatoes are another article of common food, as well as chesnuts, which are planted in the high parts of the island, unfit for vines. Wheat and barley are sown in the vineyards, where the vines are nearly worn out; but the whole produce of these grains does not exceed three months consumption, the deficiency being made up from the Azores, and North and South America. Sugar cane is also cultivated on the island, from whence it was first carried to America. The island also produces the mastic tree, and other gums, together with the cinnamon, cedar, &c. The gardens produce most of the European fruits, as well as some of the tropics, such as the plantain, guava, &c.

Common domestic animals are in sufficient abundance; but the only wild animal is the rabbit, and the only reptile the lizard. The custom of turning the hogs into the woods to seek their food has produced a half-wild breed, which are hunted with dogs.

The population of the island is from 80,000* to 90,000. The military force in 1790 consisted of

2 E 4

of 150 infantry of the line, 150 artillery, 4,000 regular militia, cloathed, armed, and exercised, and 10,000 irregular militia. The island is divided into two captaineries, named Machico and Funchal.

The English have twenty commercial houses at Madeira, whose reunion forms the British factory, and who almost monopolize the trade of the island. The exports, besides wine, are insignificant, consisting of some wood, mastic, and other gums, honey, wax, and orchilla. The whole value of exports is estimated at £500,000, of which England and her colonies take £400,000, the United States £90,000, and Portugal only £10,000.

The imports are from England, manufactures for £300,000; from the United States, lumber, corn, &c. for £100,000; and about the same value from Portugal, the Brasils, and Azores, so that the imports and exports balance each other.

The revenue consists of one-tenth of the produce of the vineyards, and a duty of ten per cent. on imports, and eleven per cent. on exports; producing together about £100,000, the annual expenses being about £70,000; a nett revenue consequently remains to the crown of £30,000, but some years this sum is said to be reduced to one-third.

Funchal, the only town of the island, is situated on the south coast, on a large open bay, which at no season affords convenient anchorage, and is extremely

extremely dangerous in the winter, when heavy gales from the S.W. are common. The beach is composed of large burnt stones, rounded by the action of the sea, and has often a surf on it that renders landing impossible, yet it is the most accessible part of the island.

The town extends three-quarters of a mile along the beach, and about half a mile inland; its streets are narrow and crooked, paved with the stones from the beach, or with large masses of rugged lava, disagreeable to the feet. Several small streams descending from the mountains run through the town into the bay, but as the inhabitants throw all their ordure into them, they add little to the cleanliness of the streets. The population is from twelve to 15,000.

Funchal is defended by four forts, *viz.* 1. St. Jago, at the east extremity of the bay, immediately under a steep hill; 2. St. Lorenzo, in which is the government-house; 3. Peak Castle, on a hill N.W. of the town, half a mile from the shore, and of difficult access on the south, but commanded by another hill; this is, however, the chief fortification, the walls being very high, but without a ditch, and not mounting above twelve guns; 4. the Loo Rock, on which is a fort with numerous cannon, *en barbette*, and surrounded by a weak parapet. This rock, the name of which is properly Ilheo, the Island, is distant from a rocky point of the bay 120 fathoms, and this narrow channel is 768 fathoms deep; the small craft belonging to the island, in winter lay under this rock, with a rope

a rope fast to it, but on the first appearance of bad weather the people quit these and leave them to their fate. Two hundred paces west of the town is a work one hundred paces long with three small bastions and a redoubt towards the sea, washed by the waves. The beach is also defended by a long low wall with cannon at intervals, but which could be of very little effect in preventing the landing of troops, did not the surf assist it.

Besides Funchal, the only landing places on the island are Santa Cruz, on the S.E., and Machico on the N.W., at both of which small craft load wine.

The chief headlands of the island are Point Lorenzo, N.E.; off it are several rocks above water; Point Parga, S.W.; Point de Sol, three leagues and a half west of Funchal, named from its being painted with beautiful rainbows in westerly gales and stormy weather: it is a majestic perpendicular cliff.

Porto Santo, the lesser of the Madeira islands, forms in several peaked hills, and is fifteen miles in circuit; its distance from Madeira is fourteen leagues N.E. On the S.W. is a bay sheltered from all winds but S.W. to W., and within it is a harbour landlocked. Water is procured at this island with less difficulty than at Madeira, and provisions are plenty. Population, 5 or 6,000. It exports some dragons' blood, honey, wax, and silk.

The Dezertas are three small rocky islets, seven leagues S. by E. from the N.E. point of

Madeira.

Madeira. The channel between these islands and Madeira is clear, and has thirty to forty fathoms; except on a small bank near the middle, on which is but eight fathoms. There are also clear channels between the different islands of the Dezertas.

The SALVAGES are a group of rocky islands between Madeira and the Canaries. The northernmost, named Isle Grande, is high and barren, with some trees at each end. It is about one mile in circumference. The S.W. rocks are called the Great and Little Piton, and are three leagues distant from Isle Grande, but a rocky bank, called the Ledge, unites them.

CANARIES.

The CANARY Islands are eleven in number, seven of which only are of any size. The climate is temperate and healthy, but differs in the different islands according to their elevation and situation with respect to the prevailing winds, which are north and N.E. The rains sometimes begin towards the end of November, but generally later, and last till March. This season is called winter by the islanders, although it very seldom freezes, and snow only falls on the mountains: on the Peak of Teneriffe it remains unthawed from November to June. The rains often cause great damage, descending in torrents from the mountains, they carry with them a considerable part of the vegetable earth that covers their sides. Nevertheless, without

without these rains, the islands would be totally sterile, for few of them have any constant streams. In the plains, the maximum of the thermometer is generally 80°, and the minimum 60°. The general productions of the island are barley, rye, Indian corn, potatoes, calavances, peas, for the consumption of the inhabitants; lupins, peas, lentils, beans, and a little oats, for the cattle. The fruits are figs, olives, dates, and grapes. In the gardens, oranges, lemons, peaches, almonds, bananas, papas, apples, pears, cherries, prunes, quinces, apricots, and pomegranates. The cotton trees of the islands are superb, but neglected by the inhabitants. The sugar-cane also thrives exceedingly, but is little attended to, and the produce is consumed in the islands. The culinary vegetables cultivated are sweet potatoes, yams, cauliflowers, onions, of which a quantity is exported to America, calabashes, water melons, spinach, strawberries, lettuces, chicory, radishes, turnips, beet-root, carrots, cresses, pimpernella, artichokes, pimenta, absynth, parsley, and celery.

The wild animals found on the islands are deer of different species, hares, rabbits, rats and mice, wild goats and cats; formerly they had wild asses and dogs, but their races are extinct. The domestic animals are horses, asses, mules, oxen, hogs, sheep, goats, dogs, and cats.

The birds amount to sixty-four species, amongst which are the pheasant, bustard, woodcock, snipe, red legged partridge, quail, pigeon, dove, &c.

The

The fishery on the coasts of the islands is by no means productive. In spring, however, mackarel arrive in large shoals, when a profitable fishery is carried on.

The CANARIES were first occupied by Europeans in 1402, when John Bethincourt, a Norman, made himself master of Lancerote, and the other islands were successively conquered from the natives, Teneriffe being the last, which was subdued in 1496.

The population of the islands seems to increase in the usual proportion of civilized people, as the following table shews.

1678	105,637
1745	136,192
1768	156,000
1794	174,000 *

The islands are governed by a commandant-general, who usually resides at Sta. Cruz, Teneriffe. He is judge in all military affairs, but an appeal lies from his decision to Madrid; his salary is 9,000 piastres. The chief officers under him are an auditor, a king's lieutenant, a town major, and commissary of war. Civil justice is administered by the alcades of the Cantons, with an appeal to the superior audience at the Grand Canary. The affairs of religion are directed by a bishop, who also

* According to Monsieur Le Dru. 169,500 according to Lord Macartney; but the first appears the most correct. In 1803, St Vincent estimates them at only 157,699. The population of each island will be found in the particular description

also resides on that island, where is an office of inquisition. The islands are considered as immediately dependent on the province of Andalusia. Those of Canary, Teneriffe, and Palma, are reputed royal demains; the property of the others has been alienated.

The price of provisions in all the islands is regulated annually by commissioners; the following was the tarif for 1794.

	s.	d.		s.	d.
Olive oil, per bottle	1	8	Salt pork . . per lb.	0	4
Candles, . . per lb.	0	6	White bread	0	0½
Vermicelli	0	7½	Salt cod	0	4
Rice	0	3	Salt herrings, 4 for	0	1½
Cheese, home made	0	5½	Apples . . . . per lb.	0	1
Butter	1	3	Oranges, 5 for . .	0	0½
Ham	0	6	Beef & mutton 3½ to 4½		
Salt beef	0	3½			

The chief food of the common class is potatoes and other vegetables, and salt fish, the produce of the fishery carried on by the Canarians on the opposite coasts of Africa. This fishery employs twenty-five to thirty brigantines of about thirty tons each, chiefly from the Grand Canary, who make seven or eight trips a year, each trip producing 18 to 20,000 lbs. of fish, which at six quarters, the lb. of 28 oz. amounts to 1,000 piastres. To the constant use of this fish, which is badly cured, is ascribed the cutaneous disorder to which the Canarians are subject.

The productions of the islands for commerce are,

are, 1st. Wine, of which it is estimated that about 40,000 pipes are made annually, that is, 20,000 pipes in the island of Teneriffe, and an equal quantity in the other islands collectively: of this quantity, 20,000 are usually exported, either in its original state, or made into brandy. This wine, named in the islands Vidonia, is dry and strong, but much inferior to the wine of Madeira, and its price is also much less, being in 1776, £12, and in 1804, £20 the pipe. A very rich wine was formerly made here, called by the French Vin de Malvoisie, (corrupted by the English to Malmsey), from Napoli de Malvasia, a town of the Morea, celebrated for its luscious wines. There is little or none of this wine now made. The brandy is chiefly exported to the Spanish West-Indies; it takes five pipes of wine to make one of brandy.

The island of Teneriffe possesses the principal commerce of the Canaries, and its ports are almost the only ones frequented by foreign vessels, *viz.* English, American, French, Danes, Hamburgers, and Dutch; but the English possess by far the greatest share of the trade, and have the most extensive commercial connections in the island. England sends to the island woollen and cotton manufactures, hardware, hats, leather, soap and candles; France, camblets, lawns, silks, and some wine; the North of Europe, iron, herrings, and fish oil; the United States, wheat, wax, salt beef, and staves. The imports from

Spain

Spain are confined to some woollen cloths, hats, and olive oil.

Orchilla, used in dying violet, is collected on the rocks, particularly of Teneriffe; it was formerly a considerable branch of export, and is collected on account of the king, who pays about seven piastres and a half the 100 cwt. and formerly resold it for eighty-eight, when peeled and dried. But the English, who chiefly made use of it, having found cheaper substitutes, its price has decreased the half.

The other exports are a small quantity of figs, raisins, oranges, and calavances, some silk stockings and gloves manufactured at Teneriffe, soda from Fortaventura and Lancerota, a little cotton, sugar, honey, and wax.

The islands of Teneriffe, Palma, and the Grand Canary are the only ones permitted to trade direct with the American colonies.

In 1788, the exports to these colonies were

Produce of the islands....	£23,800
Foreign merchandize.....	14,200
	38,000
Returns.....	30,800

The net revenue derived from the islands to the crown, (after paying all expenses) does not exceed £60,000.

TENERIFFE, the first of the Canaries in consequence, though not in size, is nearly of a triangular shape, being seventy miles long N.N.E. and S.S.W. and twenty-two broad E. and W., containing 1540 square miles, or 985,600 acres. Its name is a corruption of the word *thenariffe*, which, in the language of the ancient natives of the island, signified white mountain, from its peak being capped with snow the greatest part of the year, and for the same reason it received the name of *Nivaria* from the ancients.

The climate of Teneriffe is healthy; on the east side land and sea breezes are tolerably regular; but on the south-west side, calms and light south-west winds are frequent.

The south-west side of the island is in general barren and thinly inhabited, while the north and east coasts are fertile and well peopled. The soil of the whole island is entirely composed of volcanic substances, in large masses of scoria, in the interstices of which grow tufts of aromatic and milky plants of the genera of *cactus*, *euphorbia*, &c. The whole island is furrowed with ravines called *barrancas*, which, in the rains, become the channels of torrents, and form numerous picturesque cascades. Near the middle of the island is the celebrated peak, anciently called the Peak of *Teyde*, but which name is almost out of use. It rises in the shape of a sugar-loaf, from a base of five leagues in circumference to the height of between 13 and 14,000 feet, and may be seen forty-three

leagues at sea. The summit of the peak is a volcano, which generally emits smoke, but has not erupted since 1706; but the Mount Cahorra, one of the inferior peaks which surround the main one, threw out flames in 1798.

The Dutch formerly drew their first meridian through the peak, it being then supposed the highest elevation of the globe.

Besides the vegetable productions common to all the islands, Teneriffe produces the tree that gives the gum-dragon, and the mountains are covered with a species of pine, cypress, cedar, and laurels. The only wild animals are deer and goats.

The population of the island, according to Lord Macartney, was in 1790, 100,000; but a later writer makes it only 67,399 in 1803, exclusive of 3,000 monks.

Laguna, the chief town, properly St. Christopher de Laguna, is on the east side of the island, and four miles from the sea. It is situated near a small lake, from which it receives its name, but which becomes a marsh in the dry season. Though the situation of Laguna is low with respect to the surrounding mountains, it is so much elevated above the sea as to render the climate extremely different from that of the coast. The Plain of Laguna is the most fertile and best cultivated tract of the island. The population is 8,000; and here most of the landed proprietors and persons of independent fortune reside.

Santa Cruz, the most considerable town of the island,

Island, and the residence of the governor, is situated on the east side, five leagues from Laguna. It is built on a sandy track of land, at the foot of a chain of mountains extending from N.E. to S.W. It contains four principal streets, large, clean, and strait, from north to south, and ten lesser ones cutting them at right angles, with 8 or 900 houses, mostly of stone, whitewashed, and two stories high; the windows furnished with jealousies, instead of glass. The population is estimated at 8,000, exclusive of the garrison and clergy; the former consisting of a regiment of the line of 500 men, and a company of artillery of 100 men, are distributed in thirteen forts and batteries, which form a chain the whole length of the bay, within gunshot of each other. The principal of these works is Fort St. Philip on the south, and Passo Alto on the north, which is situated at the foot of a mountain that in some places overhangs it; beyond it to the south, is a deep ravine running inland, which serves as a natural fossé, and must render the approach of an enemy very difficult, if not impossible.

The bay is sheltered by the land, from N.N.E. to W.N.W., but with the wind from the south it is by no means a secure anchorage; and besides, the bottom is generally rocky; so that it is necessary to buoy up the cables, to prevent their being cut. In order to render landing more easy, a mole has been constructed from a projecting rocky point, in the angle of which are steps to ascend by.

This mole is defended by a battery of six heavy guns on its extremity, which commands the whole bay, and the water for shipping is conveyed to it by pipes.

N. S. de Candelaria, four leagues south of Santa Cruz, on a sandy bay, is a considerable village, inhabited chiefly by fishermen.

Guimor, a large village, two leagues and a half south of Candelaria, and one league from the sea.

Val de St. André, a small village of 400 inhabitants.

Orotavo, the third town of the island, is situated on the north coast, one league from the sea; its population is about 5,000, chiefly landed proprietors; the country round it is fertile and well watered.

The port of Orotavo, properly Puerto de la Cruz, or de la Paz, is, next to Santa Cruz, the most commercial place of the island, and contains 5,000 inhabitants. The road is entirely open to the north and north-west; and as the former is the most common wind, it throws a heavy swell in, that renders landing very difficult and disagreeable; and the only method of embarking the pipes of wine is by rafting them off. It is nevertheless a tolerably safe road, from May to October; but in the other months, when north-west winds are not unfrequent, it is extremely dangerous; and on the first appearance of their coming on, ships usually put to sea.

La Ramala, or St. John de la Rambla, a village containing

containing 1,500 inhabitants. Here was formerly made the famous Malmsey wine.

Realejo, one league north of Orotavo, is a village on the slope of a hill, amidst vineyards.

Tacaronté, a considerable village, containing 3,500 inhabitants.

Taganana, a village on the north, situated among the most productive kitchen gardens of the island; 700 inhabitants.

Garrachico, in the seventeenth century was the principal port of the island; but in 1706 an eruption of the volcano entirely filled up the port with fluid lava, and obliged the merchants to remove to Orotavo and Santa Cruz; at present, the village built on the site where the ships formerly anchored, contains 1,600 inhabitants.

St. Jago is situated on the summit of high mountains that line the coast, and in the most sterile and volcanic part of the island.

The south-west coast, as we have before observed, is the most barren of the island, the lavas from the Peak having seemingly most generally directed their course to this side, and formed a chain of steep mountains, rising abruptly from the sea to the height of half a mile perpendicular.

Adeza is a small village containing 300 inhabitants, on a bay visited by the small craft of the island, to convey away the produce, which is sugar and rye.

Los Christianos, south of Adeza, on a small bay, visited by the island crafts.

The GRAND CANARY, twelve leagues south-east

of Teneriffe, is nearly round, being about twelve leagues long and eleven broad; it is the best watered and most fertile of the islands, producing more corn than necessary for its consumption, and some wine, but which is said to be inferior to that of Teneriffe, and is principally converted into brandy; it also affords some silk, and calavances, which are imported to Cadiz, sugar of an excellent quality, honey, wax, wool, cotton, and a great deal of salt. Its population is estimated at 40,000.

In 1776, the military force on this island was 1,640 persons, distributed in eleven forts and redoubts.

Palmas, the chief place of this island, is situated on the north-east side; its road is sheltered from the north-east by the north-east point of the island, which runs out in a peninsular form, and has several desart rocks off it.

Ferro, Fer, or Hierro, the S.W. of the Canaries, is six leagues long, and three leagues broad; its coasts are formed of high cliffs, and its mountains are volcanic; it has no running stream, and but few springs, most of which also fail in summer. Its produce is confined to a small quantity of corn, a considerable quantity of Orchilla, grapes, and figs which are made into brandy. The woods have deer, red-legged partridges, bustards, and pheasants.

The chief exertions of the inhabitants, who amount to about 4,000, are turned towards the rearing of cattle. Eggs are very common over this island,

island, whence it has received the name of Black Island from the people of the others.

Louis XIII., in order to create a regular uniformity in the French charts, directed that the first meridian should be drawn through this island, and several nations of Europe adopted it, computing it from Valverde, the chief place, nearly in its centre, which is 17° 45′ W. of London. El Golfo, or the Gulf, on the east side, is the principal village.

Gomera is five leagues distant from the S.W. coast of Teneriffe; it is six leagues long, and its medium breadth three leagues; it is mountainous, but with fine vallies, well wooded, and producing corn, calavances, and wine, but not sufficient for its consumption. Its population 7,000.

Palmas, the chief place, is on the east side, situated on a bay, sheltered from the N.E. by a projecting point, and into which fall several rivulets.

Palma, the N.W. of the Canaries, is eight leagues long, and six leagues broad, is very mountainous and woody, the interior having many extensive volcanoes. It is only cultivated near the coast, and produces the best wine of the islands, a great quantity of almonds, some sugar and silk, and corn to serve its inhabitants half the year. It has no wild animals. Population 20,000.

This island is said to be more subject to westerly winds and rains than any of the others. Santa Cruz, the chief place, is near the middle of the east side.

Ramel road, north of Santa Cruz, is a fine sandy bay.

Fortaventura, is twenty leagues long, and from five to two leagues broad, forming two peninsulas of nearly equal size.

It has no rivulets, and but few springs, but it produces more corn than necessary for its consumption, a little cotton, and some ordinary wine. The chief pursuit of the inhabitants is collecting and burning the soda, which covers its beaches. Population 20,000.

Lancerota, named after its discoverer, is six leagues long and four leagues broad. The trees, which formerly covered the summits of the hills, having been entirely cut down, has almost entirely deprived the island of water, there being but one running spring on it, which is on the north side.

The north coast presents very high and steep cliffs, bordering the sea.

The vegetable productions of the island, when the seasons are favourable as to rain, are more than sufficient for its consumption, and it also produces some wine, which is mostly converted into brandy for the American market. The population of this island, and the small island near it, is estimated at 9,500.

On the S.E. side of the island are two good ports within reefs, called Puerto de Nada and Puerto Cavallos. The former, which is the northern, is well sheltered from the N.E. and the reefs breaking off the swell, the water is perfectly smooth, and here vessels in want of refitting usually put in. It has

two

two entrances between the reefs, the north one has only fourteen feet at high water, and the south seventeen feet; the depth within is twenty-seven to ten feet, rise of tide ten feet.

Puerto Cavallos is one mile south of Puerto Naos; it is formed on the N.E. by a small island joined to the main by a bridge; on the island are the ruins of a castle; on the S.W. it is bounded by rocky ledge running off from the shore in the middle of the channel, which has but twelve feet, within the depth is seventeen feet.

The strait between Lancerota and Fortaventura is called the Bocayno Channel, in which is the Isle Lobos, two leagues long and half a league broad, dividing the channel into two passages. That between Lobos and Fortaventura is two miles wide, with five fathoms water and good anchorage. The channel between it and Lancerota is four miles wide, with ten fathoms. Off the north end of Lobos is a large reef, on which the sea breaks violently. This island has neither trees nor fresh water.

Graciosa is one league north of Lancerota, the channel between forming the harbour of El Rio, in which the depth is six and seven fathoms. Graciosa is five miles long, and one mile broad.

Santa Clara, six miles N.W. of Graciosa, and Alegranza, which has no fresh water, are small islands, of which we find no description.

CAPE VERD ISLANDS.

The CAPE VERD Islands are distant from that Cape 115 leagues; they are ten in number, besides islets and rocks. Their climate is hot and not healthy, and the soil rocky and burnt up. Their produce consists of rice, Indian corn, a little sugar, cotton and indigo, with most of the tropical fruits. Their exports are mules, goat-skins, salt, and madder. The population 42,000.

ST. ANTHONY, the N.W. of the group, has a peaked hill 7,400 feet high, that is seen thirty leagues, and generally covered with snow. On the north side is a good road, where fresh water and fruits may be procured. The inhabitants do not exceed a few hundred half-negroes. The chief productions are some cotton, indigo, and dragon's blood.

ST. VINCENT, five leagues south-east of St. Anthony, is uninhabited, but has wood, water and wild goats, with a good road called Porto Grande, on the north, and anchorage all round it.

ST. LUCIA, three leagues from St. Vincent, having three or four rocky inlets between them, is twenty-four miles long, mountainous, and uninhabited. On the south-east is a good road within two small islands called Round and White Islands.

ST. NICHOLAS, five leagues south-east of St. Lucia, is the most agreeable of the group, and is the residence of the bishop. On the south side are several anchorages.

Grand

Grand or St. George's Bay, on the north-west, has anchorage in seven fathoms close to the shore, in clean ground, but out, in nine or ten fathoms; the bottom is rock. Refreshments may be procured, but there is no watering place for a ship.

Tarrafal Bay, on the north-west, has good anchorage in nine and ten fathoms; and the inhabitants will bring water to the boats on asses.

Sal owes its name to the quantity of salt made on it. It is sixteen miles long and six miles broad. It forms in two high hills extremely barren, and is uninhabited.

Mordeira Bay, on the south-west, is the best anchorage, though its bottom is rocky; before it is an islet named Bird Island. On the west side are two other bays with indifferent anchorage; and on the north a small river empties itself.

Bonavista is broken in several high mountains and intermediate vallies. The east side is lined by a reef; and from the south-east point, which is very low, a dangerous reef runs off a league, on which the East India ship Hartwell was wrecked. English Road, on the north-west, has good anchorage; and here ships come to load salt. Fresh water may be procured from a small run that leaves itself in the sand, 150 yards from the beach. A small island lies before the road with a passage within it. Portuguese Road, on the south, has anchorage in fifteen or sixteen fathoms, and fresh water.

Brava, four leagues in circuit, is high, but one of the most fruitful of the group. It affords salt-

petre,

petre, and abounds in metallic ores, particularly copper. It has many vitriolic springs. Puerto Furno, on the east, is a good harbour with a narrow entrance that obliges ships to warp out. Puerto Furneo, on the south, and Puerto Praia Dogo, on the west, are also good havens. Water and refreshments are procured here with more facility than at St. Jago.

Fuego, or St. Philip, fifteen miles long, named from its volcano, which continually smokes, and sometimes throws out flames and liquid sulphur. It has no running water, and but a few mulatto and negro inhabitants, who raise vegetables, and rear goats and cattle.

St. Jago, or Yago, the principal of the Cape Verd islands, both in size and population, is forty miles long and twenty broad. It is mountainous, and generally barren, but with fertile spots which produce abundance of vegetables and fruits.

St. Jago, the capital, is situated in a valley, but does not now contain more than half a dozen families.

Porto Praya, near the middle of the south side, is one of the best roads among the group, being perfectly safe, except from the middle of August to the beginning of November, when southerly winds sometimes blow with great violence. The bay is about one mile and a half wide between the points, and the same depth, with from fourteen to four fathoms. On its west side is a small island called Quails, Green or French Island, and off the west point of the bay, round Tuberon point, is a ledge

of

of breakers running out one-third of a mile. The beach, at the head of the bay, is a steep sand, on which there is generally some surf, but not so great as to render landing difficult. Water is procured from a well in the valley which forms the head of the bay, but is both bad and in small quantity.

The fort is built on a cliff, at the head of the bay, and mounts only a few iron guns, with a miserable garrison of half-negro soldiers. Midway between St. Jago and Bonavista is the Leton reef of coral on which the Lady Burgess East Indiaman was wrecked in 1807; great abundance of fish are found near it.

Mayo is high, uneven, and hummocky, twenty-one miles in circuit. It has but a single spring of water near its center, which forms a small stream. Its inhabitants are said to be 7,000 in three towns.

The north coast of this island is very rocky, and is lined by a bank three miles distant from the shore that nearly dries at low water. The only good anchorage is in a bay on the south-west, called English Road, on the shore of which is a large natural salt-pan, formed by the sandy beach, which is higher than the ground behind it. In high spring tides, the water rising above the beach, fills the pan, and the sun forms the salt without either labour or expense. The salt is conveyed to the boats on asses.

ISLANDS IN THE SOUTH ATLANTIC OCEAN.

FERNANDO NORRONHA, sixty leagues from Cape St. Roque, (Brasil,) is ten miles long and three broad. It rises to a high rocky pyramidical peak, leaning to the east. The shore is entirely rocky, and the surf so high that it at times prevents landing. The best anchorage is on the north side, near which is a little island affording wood. It is deficient in water, which almost entirely fails during the dry season; and whole years pass without a shower of rain. This drought is unfavourable to cultivation, though the soil is in other respects proper for it. It is much frequented by turtle between December and April.

This island was discovered by Americus Vespacius in 1502, but was neglected until 1533, when the French, finding it unoccupied, demonstrated an intention of forming a settlement on it; to prevent which the Portuguese sent hither some troops from Fernambuco, and built forts, and it has since been a place of banishment for their criminals. Besides the garrison, which is relieved every six months, the only inhabitants are a few indigent mustees and slaves. The refreshments the island affords, are bullocks, sheep, poultry, and fruits. Between this island and the continent is a dangerous reef a little above water, on which the East India ship Britannia, and George transport, were wrecked in 1805, latitude 3° 12′ S., longitude 33° 31′ W. On the south-west or lee side,

is

is a sandy beach, probably affording landing to boats. The current runs here two miles and a half an hour to the west, and the tide rises six feet.

Ascension was first seen by Juan Gallega in 1501, and named Our Lady of Conception, but received its present name two years after from Albuquerque, who touched at it in his way to India. It is three leagues long north and south, and two leagues broad, forming in several peaked hills, and is a mere mass of volcanic matter, with the exception of a hill nearly in its middle, which is composed of limestone untouched by the volcanic fire. It is named by the English Green Mountain, from the little verdure that clothes it, and which is chiefly wild purslain, almost the only vegetable found on the island. The only soil is decomposed lava and pumice-stone resembling brickdust. The island has no spring of water; for though the summit of the Green Mountain, which is 2,400 feet high, is often enveloped in clouds, they scarcely ever condense into rain. The wild goats formerly found on the island (originally left by the Portuguese) have become scarce and are very lean. Rats and mice however abound. Turtle come on shore to deposit their eggs in great numbers, in February, March and April, and afford the only inducement to ships to touch at this island. The anchorage is good, in a smooth sandy bay, on the

the west side of the island; though the surf is here at times so great as to prevent boats landing.

ST. HELENA was discovered by Juoa Nova Gallega on the festival of St. Helena in 1501, but was neglected until 1651, when the English requiring an intermediate place of rendezvous for their India fleets, took possession of it, and retained it until 1672, when the Dutch took it by surprise, but the English recovered it the following year.

It is twenty-seven miles in circumference, containing 30,300 acres. It is entirely composed of steep rocky precipices and high mountains, covered with volcanic rubbish, but enclosing beautifully romantic vallies. The highest elevation is the Peak of Diana, 2,692 feet above the sea.

Its climate is dry and extremely healthy, being free from any sudden changes of the atmosphere, or of temperature, and continually refreshed by the trade wind. Thunder and lightning are very uncommon.

The windward side of the island has no possible landing, a violent surf constantly breaking on it. On the lee, or S.E. side, are some small bays affording anchorage. The principal of these lies before James's Valley, on which is James's Town, the only collection of houses on the island, and of which the reader may form an idea, by conceiving an oval bay, surrounded by

naked

d precipices, rising to an elevation of 400
s. In a deep ravine, between these preci-
s, are seen a few white and yellow washed
es, and a church resembling those of our
ish villages. Some cocoa-nut and other
intermixed with the houses, afford a scanty
ire, which singularly contrasts with the red
lark grey rocks of the surrounding heights.
esh provisions are at all times scarce, and
mely dear at this island: a turkey usually is
for two guineas; a goose, one guinea; a
k, eight shillings; a fowl, five to two shillings
a sixpence; hogs alive, one shilling the pound;
potatoes, eight shillings the bushel; cabbages,
one shilling and sixpence; limes, one penny
each. As the island cannot maintain a sufficiency of
horned cattle, a vessel is stationed here for the
purpose of fetching them from the coast of
Africa; but even the supplies thus obtained are so
inadequate to the demand, that the homeward-
bound fleets usually exhaust the whole live stock
of the island; and the garrison is only served with
fresh beef on the anniversary of his Majesty's
birth, and on Christmas day. Their usual food, be-
sides their rations of salt provisions, is confined
to fish, and although there are seventy species
taken round the island, and all abundant, yet
they are exorbitantly dear. The bonetta and
albicore, and a kind of horse mackerel, are the
most common. The albicore has received the
name of St. Helena beef.

All the vegetables of the English kitchen gar-

den are produced here, together with some of the fruits both of Europe and the Tropics, but all in too small quantity to supply the demand.

The wild animals on the island are goats and rabbits; and amongst the feathered tribe are the red-legged partridge and common pheasant.

The population of the island in 1805, was 504 white inhabitants; 329 free blacks; 1,231 slaves, exclusive of the military and civil establishments, the former consisting of one regiment of infantry, five companies of militia and a corps of artillery.

The East India Company are lords proprietors of the soil, with powers of sovereignty and legislation. The supreme executive power is vested in the governor, and a council composed of the lieutenant-governor and the senior civil servants.

During war this rock is of the greatest importance to England, affording a secure asylum to the homeward-bound India fleets, where they wait the arrival of a convoy for England. As a landing can only be effected on the lee side of the island, every accessible spot on that side is protected by fortifications, and the strictest military discipline is enforced throughout the island. The annual expenses of the island to the company amount to from forty to £50,000. The only revenue is in the quit rent and rents of land leased, which amount to £1,000 a year, and the profit on the monopoly of arrack, which commonly produces £10,000. The Company have here a store house,

house, in which the inhabitants can procure all the merchandize of England, India, and China, necessary to them, at an advance of only ten per cent. on the prime cost.

About 7,000 acres of land are productive, and laid out in orchards and gardens, the innumerable rats rendering it impossible to raise grain. The fruits are oranges, limes, figs, grapes, guavas, bananas, peaches, pomegranates, citrons, water and musk melons. There is but one apple orchard, which affords the proprietor a revenue of £500 a year. In the government gardens are a few cocoa palms, and pine apple plants: gooseberries and currant bushes turn to evergreens, and bear no fruit. The *arum esculentum* is cultivated for the food of the slaves. The scarcity of water is the principal impediment to the extension of agriculture, but this might probably be remedied by the planting timber trees on the hills, the summits of which, with the exception of the Peak of Diana, are entirely naked, and consequently do not condense the clouds, while Diana's Peak is seldom a day in the winter season without several showers. The indigenous trees are generally stunted, and the wood light and spongy: the tallow tree is the most common. The oak of Europe has been introduced with success, and it is probable the teak of India would also succeed. Furze, the seeds of which were brought by the English, is tolerably abundant, and supplies the only fuel.

TRINIDAD Island is six miles in circuit, high and irregular, generally barren, but with some trees towards the south end. On the west side is an immense perforated rock, and another of a cylindrical form 850 feet high, called the Nine-pin, or Monument. On the S.E. side is a sugar-loaf hill, 1,160 feet high, with trees on its summit, and on which, in heavy rains, a beautiful cascade is formed. There are also good runs of water on the E. and S.W. sides falling over the rocks, but difficult to be got off, from the great and constant surf. The island has wild hogs. It was formerly occupied by the Portuguese, but again abandoned. 28° 32′ S. 29° 9′ W.

The Martin Vas Rocks are three high, barren, and inaccessible islets, three miles in extent, and eight leagues and a half from Trinidad.

The charts lay down several islands, rocks, and shoals in the Atlantic, which either have no existence, or at least, not near the situations ascribed. Such are, Rocks twenty-eight leagues N.W. by W. of Porto Santo. The Porgas bank, between Cape Verd islands and the main. The Bonetta shoal in the same channel uncertain.

Ascension of the Portuguese, placed 100 leagues west of Trinidad, is probably this latter; an error of this distance in longitude, caused by the westerly current, being nothing improbable to the first Portuguese navigator who supposed he had discovered this island in 1501.*

* So late as 1776, it was not uncommon for ships bound to India to make the coast of Brasil, when by their reckoning they were ten degrees of longitude east of it.

St. Mathew, in latitude 2° S. and 9½° W. has probably no existence, though it is minutely described by the Portuguese discoverer.

Saxemburgh Island, with its remarkable peak, though pretended to have been recently seen, does not exist in the position assigned it, and probably navigators have been deceived by a fog bank.

ISLANDS IN THE GREAT SOUTHERN OCEAN.

The three isles of Tristran d'Acunha have their name from the Portuguese Captain who first discovered them. In 1767 a French navigator gave the two smallest the names of Nightingale and Inaccessible.

The largest island is nearly square, being about six miles each way. The whole north coast is formed of rocky perpendicular precipices 1,000 feet high, except in one spot, where is a sandy beach, with a little verdant valley behind it. A cascade falls on this beach over a rocky precipice, from which casks may be filled in a boat.

From the summit of the precipices that form this coast, a table land stretches to the middle of the island, from which rises a conical peak, which retains the snow during winter, and may be seen twenty-five leagues, its height being estimated at eight to 10,000 feet.

On the west side the land descends more gradually to the sea.

The inferior hills and vallies are cloathed with underwood, and on the sides of the superior hills grow middling sized trees. The other vegetables are wild celery, purslain, cresses, &c.: and there are some wild hogs and goats on the island. The shores are frequented by seals of different species, and by penguins, albatrosses, and other oceanic birds: and the sea around is covered with rock weed. The tides are regular and rise eight to ten feet. The captain of an American sealing vessel has latterly taken *formal* possession of this island, to carry on the seal hunting.

Inaccessible Island is nine miles in circumference; off its south point is a detached rock. It is sufficiently high to be seen twelve to fourteen leagues.

Nightingale Island is of an irregular form, seven or eight miles in circumference, with some rocky islets off its south point. It may be seen eight leagues.

Gough's Island, or Diego Alvarez, is small (not so large as St. Helena,) very high and broken, a few shrubs are the only vegetation, but it has several runs of fresh water, and landing in a little bay. It has been latterly much visited by American vessels for seals, these animals being found on it in vast numbers. Latitude 40° 19′ S. longitude 9° 42′ E.

Bouvet's Island, the famous Cape Circumcision sought for in vain by Captain Cook, was redis-

covered

covered in 1808 by Captain Lindsay, in an English trading brig. It is about five miles long east and west. The west point, or Cape Circumcision, is very high and steep, and covered with snow. The east point is low. It was surrounded by floating ice in October. Latitude 54° 15′ S.; longitude 6° 14′ E.

Prince Edwards's Islands, discovered in 1772 by Monsieur Marion du Fresne, and named by Captain Cook after his Majesty's fourth son, are two in number, five leagues asunder; the southernmost and largest, is fifteen leagues in circumference, and the northernmost nine leagues: towards the S.E. they are rather low, but every where else hilly, and excessively barren. In the month of December, the middle of summer, the summits of the hills were covered with snow. There was no appearance of tree or shrub, but the low land seemed to be covered with moss, or such grass as at Falkland's Islands; nor did they appear to afford any sheltered anchorage. On the north side of each island is a detached rock. South Island, 46° 52′ S., 37° 47′ E.

Marion, or Desert Isles, are four in number, discovered by Monsieur Marion in 1772. The two easternmost are three degrees east of the north-western, 48° 5′ S., 58° E.

Kerguelen's Land, discovered by Kerguelen, a French navigator, in 1772, but more accurately examined by Cook in 1776. This island, or perhaps group of islands, for it does not appear to be yet

tained whether several deep bays are not the entrances of channels, lies between the latitude 48° 40′ and 50° S. and between 68° 20′ and 70° 30′ E. The name of the Island of Desolation which Captain Cook said it merited, is descriptive of its sterility. It is hilly and rocky, generally presenting steep cliffs, with deep chasms towards the sea. The rocks and bases of the hills are of a deep blue very hard stone, mixed with quartz, and the only soil, even on the hills, is a mere bog, so that perhaps no place of the same extent hitherto discovered in either hemisphere affords so scanty a harvest to the naturalist. The whole number of vegetables found on it amounts only to sixteen varieties, including mosses; the principal are, a small plant resembling saxifrage, another like a small cabbage run to seed, two kinds of cresses, and a coarse grass, which cattle will eat. There were no land animals seen on it, but the beaches were covered with seals, particularly of the ursine species. The birds were also entirely austral oceanic. Fish do not appear abundant; and the only shell-fish observed were limpits and muscles. There are several good bays and roads round the island, latterly visited by sealing vessels. The tides are regular, and the rise considerable.

West and north-west of Kerguelen's Land are some scattered rocky islets.

Several islands and shoals are marked in the charts of the Great Southern Ocean S. E. of the Cape of Good Hope,

Hope, which certainly have no existence, and others which are very doubtful: such are the Telemaque Shoal, 38° 40′; 22° 02′ E. uncertain; the Slot Van Capelle Shoal probably exists, but its situation is uncertain, between 36½° and 40° S.; soundings have been got in 37° 20′; 36° 54′ E. which is probably on a part of this bank.

The pretended Isles of Denia and Marseeven have most probably no existence, and navigators who supposed they had seen them were possibly deceived by ice islands, which are very common in this latitude (41°).

The islands of St. Paul and Amsterdam lay in the track of ships bound to India and China. They are seventeen leagues north and south of each other. The northernmost, named originally St. Peter, is the Amsterdam of the Dutch, but the English charts have generally given that name to the southernmost.

The southern island is eight or ten miles long and five broad, moderately high, and generally covered with a fertile soil calculated to produce the fruits and vegetables of Europe. The only indigenous vegetables are, however, grasses and moss, without bush, or fruit-bearing plant of any kind. On the east side is a curious basin apparently the crater of an ancient volcano, two or three miles in circuit, defended from the sea by a narrow low causeway 1,000 feet long, in which is a shallow break 200 feet wide, forming a channel into the basin, through which the tides run in and out three miles an hour with a rise and fall

fall of nine feet; in the middle of the basin the depth is twenty-nine fathoms. On the causeway are several hot springs, in which the thermometer rises to 204°; and of which the water is brackish and chalybeate. From each end of the causeway the edges of the basin all round rise perpendicularly to the height of 700 feet.

The island has several other old craters, and at night flashes of flame are observed to burst from the crevices in the higher grounds.

Fish is extremely abundant, particularly in the basin; the chief kinds are rock cod, large perch and bream; cray fish are also plenty. This island is chiefly visited for the seals which cover the shores. Besides the usual austral oceanic birds as albatrosses, penguins, petrel, &c. a small duck is found here. The only good anchorage is opposite the basin. Latitude 38° 44′ S., 77° 53′ E.

The northern island is twelve miles in circuit, and very high, with a volcanic appearance, and is said to have abundance of fresh water, but no anchorage.

New or South Georgia Island was discovered by La Roche in 1675, but its extent was not ascertained until 1776, when Cook visited it. It presents nothing but mountains raising their heads to the clouds, and surmounted by glaciers, while the vallies are covered with perpetual snow. The only vegetation is a strong bladed grass in tufts, and some other small plants. The dung of an animal, supposed to be a fox, was the only indication of the existence of quadrupeds, and the only

only land bird seen was the lark. The atmosphere is enveloped in constant mist, which together with the numerous detached islets and rocks, renders the navigation very perilous. Sandwich Bay, near the middle of the land, is in 54° 42′ S., 36° 12′ W.

SANDWICH LAND, or the SOUTHERN THULE, is if possible more dreary and desolate than even Georgia, being a mass of black rocks covered with ice and snow, and which probably will never be revisited by human beings. It extends between the latitude 57° 10′ and 59½° S., and between the longitudes 26½° and 27° 45′ W.

BRITISH ISLANDS.

The Island of Great Britain is calculated (following its indentations) to have 800 leagues of coast, and presents a very irregular outline, from its numerous gulfs, bays, and estuaries. As a general feature it may be observed, that the western coasts are elevated, rising in some places to alpine heights, and warning the navigator of his approach at many leagues distance, while the face of the land declines to the east and from the North Foreland to Duncan's Bay Head presents a comparatively level and low line, visible but at the distance of a few leagues or even miles. The south coast is also generally little elevated.

The idea that Great Britain was anciently joined to the continent has been adopted by many writers, and is principally founded on the similarity of the strata that compose the cliffs of Dover and Calais, which are alike composed of chalk and flints, and their length on both coasts the same, that is six miles. A narrow ridge of sand and stones, ten miles long, called the Rip-raps, extends between Folkstone and Boulogne, at the distance of ten miles from the former, over which there is but fourteen feet water at low spring tides;

tides; and another bank, called the Varne, with the same depth, lies about six miles from Dover.

The English channel, *La Manche* of the French, *Oceanus Britannicus*, is 276 miles in length from the Strait of Dover to the Land's End, and its breadth between this latter point and Ushant, called by seamen the *Chops* of the Channel, is 100 miles. In general this gulf, or internal sea, is without shoals or dangers except near the shores. The depth in mid channel, from the Land's End to Dungeness, is from fifty-six to eighteen fathoms.

The Strait of Dover (*Pas de Calais* of the French) is where narrowest, between Dover and Cape Griznes, eighteen miles and a half, and the distance between Dover and Calais piers twenty-three miles. The depth in the middle of the Strait is twenty-four to eighteen fathoms.

The tides on the coasts of the British Islands are entirely conformable to the theory of siderial attraction, though in some instances they come from directions that would seem to contradict this theory.

The main or grand tide of flood coming from the south, when it strikes against the Land's End, is broken by this promontory, and follows the direction of either coast; that branch which runs up the English Channel increases its velocity on the coast of England as it proceeds, being in spring tides between the Land's End and Lizard two miles an hour; from the Lizard to the Eddystone two and a half; from the Eddystone to the

Owers

Owers Sand three and three and a half; from the Ower's to Beachy Head four; and from Beachy to Dengeness four and a half: the greatest rise is thirty feet in common springs. On the coasts of France the velocity and rise are much greater, and the stream continues on these coasts through the Strait of Dover, and along the coast of Flanders, Holland, &c. quite to the entrance of the Baltic. On the English shore, on the contrary, the tide from the Ocean up Channel is met by an opposite tide from the British or North Sea at Dengeness.

S.W. winds considerably raise the level of the English Channel and increase the velocity and duration of the stream of flood. At the Land's End this cause produces an effect of ten feet in the rise and one hour in the duration, the current caused by the wind overcoming the first of the ebb.

The second branch of the ocean tide broken by the Land's End ascends the Irish Channel, filling the Bristol Channel in its progress, where the confinement of the shores causes an accumulation that gives a rise of forty-two feet in King Road, and produces a *bore* in the rivers. Having filled the Bristol Channel, the flood continues its course along the coast of England to Walney Island, where it meets the stream that comes round the north coast of Ireland, and this opposition, while it neutralizes the current, causes an accumulation in the Bay of Moricambe, that rises the spring tides to six fathoms.

The

The grand stream of the flood coming from the south towards the British Isles is divided by the south-west end of Ireland at the Skellig Rocks, in a similar manner to that of the Land's End, one branch setting into the Irish Channel along the south and east coasts of Ireland, while the other, flowing along the west coast, and arrived at its north extremity, turns in through the north channel, where at the extremity of the Mull of Kintyre it flows six miles an hour. Continuing its course to the south it meets the southern flood already noticed at Peel on the west side of the Isle of Man; here another division takes place, one branch running to the north-east round the north end of the island, and the other to the S.W. rounding the Calf of Man, and then turning to the N.E., till a few miles from Maughold's Head it joins the first branch, and they flow together into the Solway Frith.

The main branch of the tide that sets along the west coast of Ireland continues its direction to the north towards the south end of Ilay Island, whose S.E. point divides it, one branch setting through the Sound of Ilay between that island and Jura, and the other following the coasts of the island to the west, rounds the Mull of Kinho, the S.W. point of the island, and then turns to the N.E. through the Gulf of Corryvrecken between Jura and Scarba. In this strait it forms a whirlpool little inferior to the Maelstrom, the velocity being fourteen or fifteen miles an hour. The

whirlpool

whirlpool is caused by a sunken rock of a conical shape, sixteen fathoms under water, as well as by the stream that had set round the east side of Ilay, and which running at the rate of eight miles an hour and meeting the other running fourteen, their opposition causes frightful breaking waves, extremely dangerous even to large vessels.

The general stream is again divided by the southern isles of the *Western* Hebrides, each branch taking a direction along the opposite sides of the chain, with no material deviation until the western branch reaches the Sound of Harris, through which the stream flows to the south; the main stream, however, continues its direction to the north, and off the Butt of Lewis again unites with the eastern stream, and flows towards Cape Wrath, and round this cape along the north coast of Scotland and through the Pentland Frith with the velocity of nine miles an hour, forming whirlpools and races. The stream runs regularly from Duncan's Bay Head to the south along the east coast of Great Britain, filling up the great gulfs of Murray, of Forth, of the Humber, and the Thames in succession, and forcing its way through the Strait of Dover, until it meets the channel tide at Dengeness.

Thus it clearly appears that the tides deviate no farther from the siderial theory, than as they are necessitated by the common laws of fluids to follow the direction of the opposing coasts.

The currents in the British Seas are by no means well

well understood, and their effects are probably often confounded with those of tides. We have before noticed that a *general* current sets from the north and north-west into the Bay of Biscay, and it would appear, that when long continued west and south-west winds have prevailed, the combined accumulation of water thereby caused in this gulf, seeks an exit to the north-west, and produces a strong current in that direction across the entrance of the English Channel, which may be of very dangerous consequences to ships running for the channel upon what is called the fairway parallel (49° 30′) without allowing for the effects of this current.*

SOUTH COAST OF ENGLAND.

Cornwall.

The county of Cornwall occupies the western extremity of England, and terminates at the promontory of the Land's End; the *Bolerium* of Ptolemy, and the *Penring huad*, "promontory of blood," or *Penwith*, "promontory to the left," of the Ancient Britons. It is a vast round cape forming three points, the S.E. named *Tollpeden Penwith*, or the Hole in Penwith, from a cavern in the cliff, into which the waves rush with great noise. The N.E. point is Cape Cornwall, and the middle the Land's End point; between them is the

* Rennel Phil. Tran.

Cornwall. open bay of Whitesand. Round this promontory are several rocks above and under water, *viz.* the Rundle Stone, on which is a beacon of four cast iron cylinders twelve feet high, bolted to the rock, and surmounted by a pole with a basket. The Wolf has also a beacon. The Longships are a ledge of black rocks, a league off shore, without any ship channel within them. They have a light house, erected in 1797 by a private individual, who receives a toll for its support from all vessels passing round the Land's End.

On approaching the coast of Cornwall from the Atlantic, the voyager is by no means favourably impressed with the appearance of the country, the coasts being in general rocky, and almost entirely without wood.

Between the Land's End and Lizard Point is Mount's Bay, named from the Isle of St. Michael's Mount, on the east shore, which is surrounded by the sea at high water; but when the tide is out, a ridge of dry rocks 400 yards long joins it to the main.

This islet is one of the most celebrated objects of the coasts of England. It is a great conical mass of granite, surrounded by craggy rocks, with only a little herbage and some clumps of firs. According to the popular tradition, which is preserved in its Cornish name, signifying "Grey Rock in the Wood," it was anciently situated in a wood, and this belief is corroborated by the remains of trees found buried in the soil, within the present wash of the tide. It was known to Ptolemy,

Ptolemy, who calls it *Ocrinum*, and received its present name in the sixth century from the pretended apparition of St. Michael to some hermits of the mount, when a chapel was built on it, and it acquired additional sanctity, it having been already a noted place of pilgrimage from the fifth century. Edward the Confessor founded a Benedictine monastery on it, which, after many revolutions, is now the property of Sir John St. Aubyn. The inhabitants of the mount are about 250, all fishermen. On the north side is a little pier haven for small craft. Cornwall.

The Lizard Point, which bounds Mount's Bay on the east, is also the south point of England, and the extremity of a peninsula, named *Men-ag*, on it are two lights. It is composed of serpentine and hornblende, and between it and Mullion is the celebrated loop rock, a vast mass of *steatites*, used in the manufacture of porcelain. Half a league from the Lizard Point are the Stags, great rocks above water.

The trading places of Mount's Bay, are Mouse Hole, or Port Inis, a little haven with two piers; north of which is St. Clement's Island. PENZANCE (*i. e.* the head of the bay) is the most westerly town of England, and is, as its name denotes, situated at the head of Mount's Bay, ten miles from the Land's End. It is a corporate and one of the tin coinage towns. The houses are many of them good, and the streets paved. It has a pier haven, exports a considerable quantity of pilchards, and is a grand smuggling place.

Cornwall. It has a daily communication with the Scilly Islands by passage vessels.

Market Jew, or Marazion, within St. Michael's Mount, is an ancient town, having its origin from the resort of pilgrims to the Mount. The name of Market Jew is thought to be from the Jews formerly having an annual fair here, when they were the only traders of England. Marazion signifies "Sea Coast Market." The cessation of pilgrims and the vicinity of Penzance, have caused its decline. It is built on the side and at the foot of a hill, which shelters it from the cold north winds. It has 1,000 inhabitants and is corporate.

Helstone, a corporate and borough town, is situated at the junction of the little river Cober with the Loe. It has 2,284 inhabitants and some trade.

Rounding the promontory of the Lizard, the first place of any consideration is Helford harbour, at the mouth of the Hel. The village of Helford, on the south shore of the harbour is inconsiderable.

FALMOUTH haven is a deep inlet, whose entrance is a league wide, between Pendennis Point on the west, and St. Anne's Point on the east. It divides into several branches and creeks. The main one, named Carrick Road, is a mile within the entrance, and has eighteen fathoms depth.

FALMOUTH, the richest town of Cornwall, is built at the foot of an eminence, on a creek which receives large vessels to its quay. The population is

is 3,800, exclusive of seafaring people. Its chief business is the pilchard fishery, the produce of which it exports direct to Spain, Portugal, and Italy. It also derives considerable advantage from being the station of the Lisbon, Corunna, and West India packets. It has a general custom-house for all the ports of Cornwall. Cornwall.

The entrance of Falmouth harbour is defended by the castles of Pendennis and St. Mawe. The former is a long point of land on the west, 300 feet above the sea, mounts 100 pieces of cannon, and is garrisoned by a company of invalids. St. Mawe's Castle, on the east shore, is inferior in strength to Pendennis, and commanded by an elevation. The corporate and borough town of St. Mawe does not contain above twenty houses of fishermen.

The other towns accessible to sea vessels through Falmouth harbour, are Penrhyn, on the same creek above Falmouth, a considerable corporate and borough town of 2,300 inhabitants; opposite it is the village of St. Gluvias. Tregoney, on the Fal, a small borough town, receives boats only. Truro, the most thriving town of Cornwall, is corporate and borough. It is built in a valley at the confluence of the Kenwyn and St. Allen with the Fal, where the tide at high water forms a basin, two miles long, which receives vessels of 100 tons with the tide. The population is 4,500. Its principal business is the exporting tin and copper, it being one of the tin coinage towns. It has a theatre and assembly rooms.

Cornwall. The Deadman, or Dodman Point, is very high land, with the Yare and Winehead great rocks, three miles N.E. of it. North of it is Polkerries Bay, to which succeeds Goran Haven, and Mevagizzey.

Rope Haven has a pier for fishing boats. Portmear, or Charlestown, on the N.W. side of Trewardreth Bay, in 1790, was only a hamlet of nine houses, but by the exertion of the lord of the manor, it has grown into a thriving town, and a haven has been formed for vessels of 500 tons, by excavating the soil inwards, a manner much preferable to running out works into the sea. A dry repairing dock has also been cut out of the rock. In 1802 the population was 282 souls. The principal business is the pilchard fishery, and the export of China stone, for the use of the Staffordshire potteries.

Trewardreth, at the mouth of a creek, is a small fishing village.

Fowey, on the right bank of the river of the same name, one mile and a half from its mouth, where it is a quarter of a mile broad, is a corporate borough and tin coinage town. Its streets are generally so narrow as not to admit a carriage, nor has it any thing worthy of notice, except its church. The inhabitants, who are about 1,200, are chiefly employed in the pilchard fishery, 2,800 hogsheads of these fish being brought into the port every season. The haven is defended by two small batteries, and by St. Catherine's Fort, on the summit of a pile of great rocks.

Polperron

Polperron is a fishing village on a creek of Lantach Bay. Looe, East and West, are two dirty, but opulent fishing towns, on the river of the same name. They communicate by a bridge, but have separate corporations, and are both boroughs. East Looe is a labyrinth of narrow alleys, and has not above 200 houses, and West Looe is still less. A small battery and breast work protect the port, whose entrance is crossed by a bar, with but twelve feet at low water. S.W. of the river's mouth is Looe, or St. George's Island, a great rock frequented by sea birds. Cornwall.

Port Wrinkle, in Whitsand Bay, west of the Ramehead, is a small pier for boats.

Plymouth Sound is a deep bay, separating the counties of Cornwall and Devon, the Ramehead being its west, and Stoke Point its east limit. The sound is exposed to the south and has several dangerous sunken rocks and reefs, one of which, named the Tinker, has been recently rendered of the greatest service, for by raising it with stones and rubbish above the surface of the sea, it has been converted into a break water, which greatly lessens the swell in southerly gales, and renders the anchorage within it comparatively safe.

The Eddystone is a group of granite rocks, S. by W. ten miles from the Ramehead. The length above water is about 300 fathoms, and one third of a mile all round, the depth is thirty fathoms. A light-house was first erected on these rocks in 1696, but which being destroyed by the tremendous storm from the S.W. in 1703, another

Cornwall. was erected, which being partly of wood, though it resisted the fury of the ocean for forty-six years, in 1755 it was totally consumed by fire. The present light-house was commenced in 1757, and finished in 1759, upon principles which seem to identify it with the rock, and render it secure against the utmost fury of the waves. The height above the rock is ninety feet, and the whole elevation above the sea 120 feet.

On the west shore of Plymouth Sound is Cawsand Bay, sheltered from the S.W. by the projecting land of Penlee Point, one mile and a half east of the Ramehead. Moorings are laid down in the bay for King's ships. The villages of Cawsand and Kingsand, in the bay, are inhabited by seafaring people. The former is in Cornwall and the latter in Devon. In the latter county is also the mountain peninsula of Mount Edgecumbe, the grounds and mansion of which are considered amongst the most beautiful in England. Opposite this peninsula lies St. Nicholas, or Drake's Island, named from Sir Francis Drake, a native of Plymouth. It is near a mile in circuit, surrounded by rocks, and well fortified, but dependant on the main land for water. The channel between it and Mount Edgecumbe is half a mile wide, but so shoal as to admit only boats.

Plymouth harbour consists of two branches. The first, at the mouth of the Tamar, is named Hamoaze, and the second, at the mouth of the Plym, is called Catwater. Hamoaze is the man of war's harbour, and is a reach of the river, four

four miles long and half a mile broad. On the west, or Cornwall shore, are the villages of Milbrook, on a creek. St. Germain's, a borough town of sixty houses, on the Lynher creek. Its cathedral is the only object worthy notice. Saltash, a corporate and borough town, chiefly inhabited by fishermen. It is three miles above Dock. Cornwall.

The town of Dock has its name from containing the Grand Royal Naval Arsenal. It is on the left bank of the Tamar, at the lower part of Hamoaze, and is a neat and very clean town, the streets being wide and strait, excellently paved, and the houses handsome; their number is 2,400. The inhabitants are chiefly persons employed in the business of the fleet. The naval arsenal, though still in a state of improvement, is in every respect the first in the world. The dry docks are excavated in the solid rock, and lined with Portland stone. The fortifications are as strong as art can make them. Devon.

Stonehouse is a village separated from Dock by a little creek, and has the marine barracks, a very noble range of buildings.

The town of Plymouth is on the north shore of the entrance of Catwater, and on a creek named Sutton Pool, which, by means of a pier, forms a safe haven for small vessels, who lay dry alongside the quays at low water. Plymouth is perhaps the most detestable of all our seaport towns, the streets being narrow, crooked, and filthy. The Catwater has depth for the largest ships,

Devon. ships, but is only used by merchant vessels laying up or refitting. The population is 19,000, and the chief trade is the export of pilchards to the Mediterranean, besides the business produced by the royal shipping.

The Shagstone and Mewstone are two great rocks at the east entrance of Plymouth Sound, named from the aquatic birds that make them their retreat. The Mewstone also abounds with rabbits. East of this islet is the entrance of the little river Yealme, defended by a battery, and with barracks on the high lands above it.

Bigbury Bay, west of the Bolt Head, is entirely open. It receives the rivers Erme and Avon; the latter a rapid torrent stream, but both useless to navigation.

Salcombe is a market town, between the Bolt Head and Praul Point. Its haven, called the *Bag*, is crossed by a bar with but eleven feet high water springs, but within the depths are three to five fathoms at low water. It has a considerable trade, and builds merchant vessels of 300 tons.

Kingsbridge, and Dodbrook, are small towns at the head of Salcombe Haven.

The shore between Bolt Head and the Praul Point is steep and rocky. Off the former is a second islet named Mewstone. The next point to the Praul is the Start, the bay between them being called Start Bay; on it are the villages of Star Cross and Street Gate. Between the Start and Dartmouth is Slapton Lea, a fresh water lake two miles long, parallel to the sea, from which it is separated

separated by a strip of sandy land a quarter of a mile broad. It formerly abounded with pike, perch, roach, and eels; but some years since almost all the fish were destroyed, and the lake nearly drained, by a break made by the sea in the bank. In winter the lake is covered with wild ducks, teal, coots, and other birds. Dawn.

Dartmouth is a corporate and borough town on the Dart, which forms a good harbour for frigates, being one mile and a half broad within the entrance, narrowing to Dartmouth, where it is two hundred yards; the depth is five fathoms above the town, and boats ascend to Totness, two leagues further. The fortifications are Kingswear Castle on the east shore, and a block-house on the west. The town is built on very irregular ground, so that the lower tier of houses communicate with the upper by flights of steps. It has a large share in the Newfoundland cod, and home pilchard fisheries.

East of Dartmouth, the coast of Devon forms a great bay, bounded on the east by the peninsula of Portland. We have no name for this curve, to which the French give the name of the Bay of Exeter. Near its west extremity is Torbay, limited on the west by Berry Head, a steep lofty promontory, and on the east by Bob's or Hope's Nose. In sailing into the bay ships may keep so close to the former as to receive a stone thrown from the edge of the cliff, which seems to overhang their mast-heads. Off Bob's Nose are four islets, called the Mewstone, Shagstone, Loadstone, and Thatcher. Torbay has about twelve miles of circuit,

Devon. cuit, and is the usual rendezvous of the channel fleet, affording perfect shelter in west winds. The usual anchorage is off Brixham in the south part of the bay, where the ships of war water by pipes at a jetty head. The Torbay fishing boats lay dry within a pier.

Near Brixham is Lay Well, noticed for continually ebbing and flowing five or six inches at intervals of a few minutes; the water is clear in summer, turbid in winter, brackish and never freezes.

Torquay is a pleasant watering village in a cove two miles west of Bob's Nose. From this last point to Teignmouth the shore is composed of limestone cliffs with many caverns and fissures.

Teignmouth, at the entrance of the little river Teign, is a fashionable sea bathing place. It has also some trade, exporting clays for pottery, and sending ships to the Newfoundland fishery. Its haven receives vessels of 400 tons with the tide.

The hamlet of Sheldon, under the point named the Ness, south of Teignmouth, is a summer resort of sea bathers.

The Ex river is one of the most considerable of the south coast of England, having a course of sixty miles, and spreading towards its mouth to a basin more than a mile wide. The tides run up to Topsham, but its mouth is crossed by a bar with only six feet at low water.

In ascending the river the first place met is Exmouth, a frequented sea bathing village; Star Cross, a village two miles higher; and the same distance further Powderham Castle, the superb seat

seat of the Lords Courteney, which dates its foundation from the reign of the Conqueror. Topsham is one mile above Powderham, and three miles further is EXETER, on the left bank, an ancient city and county of 17,000 inhabitants; it was the residence of the West Saxon kings, and the walls of the city, built by Athelstan, still remain. Vessels of 150 tons ascend to it, and it has a considerable foreign and coasting trade, its chief exports being woollen manufactures and corn; it also sends ships to the Newfoundland and Greenland fisheries. Devon.

Sidmouth is a small neat market town at the mouth of the Side, which was formerly a good haven, but is now choaked up with pebbles and sand. It has a considerable share in the coast fishery, and is a fashionable bathing place. The coast scenery from Sidmouth to Seaton is composed of bold wooded rocks, with a margin of sand and pebbles thrown up by the sea, and by which the ancient port of Seaton has been filled up, so as to receive only fishing boats, in consequence of which it is reduced to a village. Axmouth on the Ax, and Colyton on the Coly, are insignificant fishing towns.

The first place in Dorsetshire is LYME REGIS, built in a glen between two stony hills, and divided into two parts by the little river Lyme. Its haven is the best place of shelter between Dart- Dorset.

mouth

Dorset. mouth and Portland, and is formed by a pier, called the Cobb, which was formerly of loose rocks piled on each other, but is now regularly constructed with stone and mortar. Besides a great share in the pilchard fishery it has a coasting trade. In the reign of Edward I. Lyme Regis furnished four ships and sixty-two mariners at the siege of Calais. From its heights was seen the commencement of the action between the English fleet and Invincible Armada.

Charmouth is a pleasant village at the foot of a hill, past which runs the little river Char.

Bridport, on the Bride or Brit, a mile above its mouth, is a corporate and borough town of 288 houses chiefly of brick, and 3,000 inhabitants. Its chief business is the manufacture of fishing nets and lines and small cordage, which it exports to America and the West Indies. Its harbour at the mouth of the river receives vessels of 250 tons. The shore in the vicinity abounds in copperas stones, *cornua ammonis*, and other fossils.

The Isle of Portland is at present joined to the main by a long ridge of pebbles, called the Chesil Bank, thrown up by the sea. The island proper is a vast mass of freestone, with which the handsomest public and private buildings in the kingdom are paved, about 9,000 tons being quarried and exported annually. The island is well watered by running springs, and has seven villages or hamlets; Chesilton, the largest, is on the north side, and before it is Portland Castle, erected by Henry VIII., and commanding Portland or Weymouth

mouth Road. The extremity of the island forms a round promontory called the *Bill*, on which are two handsome light-houses, so well arranged that the lights are visible almost in the horizon. Near them is a cavern in the cliffs, perforated at top, fifty feet square and twenty-one feet deep, in which boats sometimes take shelter. The Shambles are a dangerous ledge of rocks two miles east of the Bill; and south of this latter is that agitated space of the sea called the *Race* of Portland, caused by the meeting of the tides from the coasts of France and England, which produces dangerous breaking waves. Dorset.

The Chesil Bank is fourteen miles long and above a quarter of a mile broad; the pebbles on it are so loose that a horse sinks up to his knees in them; they are of the same nature as the Portland stone. The bay west of the bank is extremely dangerous in south-west gales; and vessels embayed are recommended to try and work out, keeping close to Portland island, where there is a strong outset that may help them to weather the Bill; but when it is found that shipwreck is inevitable, it is best to run on shore under a press of sail, and the crew should not quit the vessel until two or three seas have struck her, by which she will be hove up and settled in the beach, affording them a greater facility of getting ashore under her lee.

Vessels coming from the eastward and embayed in Portland Road, perish without remedy. The Portlanders are active in saving the crews of vessels

sels wrecked, but at the same time they plunder them with as little ceremony or remorse as a Moor of the desert. These islanders have a custom similar to *bundling*, the women never accepting a man as a husband until she finds herself pregnant by him, when she immediately informs her mother, who tells her husband, and the latter lets the lover know that it is time the marriage ceremony was performed; and as the refusal on his part would be attended by certain stoning to death by the women, an instance of it so seldom occurs, that in twenty years not one illegitimate child is born. If pregnancy is not manifested in a competent time, the parties conclude that Providence has not intended them for each other, and they separate: nor is this any bar to the woman's finding another lover and eventual husband.

Weymouth is a corporate and borough town of 3,600 inhabitants, situated at the mouth of the Wey, which forms a tide haven within a pier. It is one of the most fashionable sea bathing places, its bay having a fine pebbly beach. Its trade is chiefly with Portugal and Newfoundland. In the twenty-first year of the reign of Edward I. Weymouth furnished twenty ships and 264 marines at the siege of Calais. Three forts, with two or three small guns in each, defend the port. On a high cliff a mile from the town are the ruins of Sandisfoot Castle, erected by Henry VIII.

Melcombe Regis, opposite Weymouth, a bridge uniting them, is a distinct corporate town.

Lulworth Cove is a kind of natural basin entered

tered through a gap in the cliffs, and is accessible to vessels of eighty tons; the rocks round it rise to a great height and are composed of calcareous gritstone. West of the cove the sea has scooped out vast caverns into which the waves rush with great noise, while the rocks resound with the screams of the puffin and razor-bill that frequent them to breed. Dorset.

St. Adhelm's Head (vulgarly St. Aldan) is a bold cliff 440 feet high, with the ruins of a stone chapel on the very edge of the precipice, supposed to have been erected for the purpose of religious ceremonies, to invoke safety for navigators passing this dangerous coast. Amongst recorded shipwrecks, that of the Halsewell East-Indiaman near this point, in 1786, is one of the most melancholy, 186 persons, among whom were many young ladies, having perished.

St. Adhelm's Head, is the extremity of a high peninsula, named Purbeck Island, almost entirely composed of pipe-clay, marble, and a hard stone, used in flagging the streets of London. Swanage and Studland Bays, on the east side of the peninsula, afford good anchorage. Swanage is a village of a single street one mile long, and from it the stone of the peninsula is chiefly shipped. Studland is a village of fifty houses scattered on a common; near it is a singular great rock supposed to weigh 400 tons raised on a mound of clay; the common people call it the Devil's Night Cap, and believe that Satan hurled it from the Isle of Wight,

Dorset. with an intent to destroy Corfe Castle in the middle of Purbeck.

Pool, a corporate town and county, is built on a peninsula, on the north shore of a shallow lagoon, called Laxford Lake, which has twenty leagues of shore with many banks and islands; the principal of the latter, named Brownsea, is one mile and a half long, and three quarters of a mile broad; in general its soil is sandy and over-run with heath and furze. On it is a castellated mansion, named Brownsea Castle, now a family residence. The greatest depth in the lagoon is fourteen feet, and in certain parts of it the tide ebbs and flows four times in twenty-four hours, which seems to be caused by Brownsea Island, which obstructing the ebb in its exit, obliges it to flow back and produces a second flood.

Pool is meanly built, but has a considerable foreign trade, chiefly to Norway and South Carolina, besides a large share in the Newfoundland fishery, and a productive oyster fishery in the lake which supplies London for two months of the year. 230 merchant vessels, or 21,000 tons, and 1,500 seamen belong to the port, of whom 140 are employed in foreign trade.

Wareham, on the west shore of Laxford Lake, is an ancient corporate and borough town of 1,100 inhabitants; it is surrounded by high walls of earth, the houses of brick and the streets wide.

The

The first place in Hampshire is Christchurch on the west shore of a large bay, between Hengistbury or Christchurch Head on the west, and Hurst Castle on the east. From the former point a great bank stretches over towards the Isle of Wight, on which there is but twelve feet, nor has the bay depth for vessels above five feet and a half draft. The town of Christchurch, at the confluence of the Avon and Stour, has 1,400 inhabitants; near it are the ruins of an abbey and castle. The chief business of the town is brewing and the salmon fishery in the rivers. Hampshire.

Hurst Castle, on the east point of the bay, is built at the extremity of a bank of pebbles and gravel, thrown up by the sea, and which at high water is not above 200 yards wide, but stretches across to within three quarters of a mile of the Isle of Wight, the channel between being called the Needles, through which the tides run with great violence, and the depth is twenty-eight fathoms. Opposite this channel is a dangerous bank of pebbles, called the Shingles, which shifts its situation, sometimes approaching the Isle of Wight, at others nearing the main; it also varies its elevation, at times appearing above the surface at low water, while at others it is considerably under water. These variations are produced by the waves in strong winds driving the pebbles from side to side.

Hurst Castle was built by Henry VIII, and was the last prison of Charles I. It is a circular tower with semicircular bastions; besides defend-

Hampshire. ing the channel of the Needles, it has also a light to direct ships through this passage.

The Isle of Wight is included in the county of Hants, from which it is separated by a channel, from three quarters of a mile to seven wide. It is twenty-one miles long and twelve broad, containing about 100,000 acres. Its fertility is such that it produces more corn annually than is sufficient for its consumption for ten years. It is intersected from east to west through its length by a ridge of hills, of a calcareous chalky super stratum over a base of *schistus*; these downs pasture great flocks of sheep. The shores of the island are in general high, particularly in the south or sea coast, where they fall into the sea in perpendicular broken cliffs; this side is lined by scattered rocks close to the shore, the resort of innumerable sea-birds, as puffins, razor-bills, willocks, gulls, cormorants, &c. Many of the cliffs are cavernous, and small cascades tumble over them into the sea. The most remarkable of these cliffs are those named Culver, at the east limit of Sandown bay: their holes are the breeding places of vest quantities of wild pigeons. At the west extremity of the island are the Needle rocks, named from a pointed one 120 feet high which no longer exists, having tumbled down and entirely disappeared about forty years since.

The island has several minerals, particularly alum,

alum, micaceous sand, which is exported for the glass manufactories of London and Bristol, copperas stones, which also are sent to London where the copper is extracted from them, pipe-clay, red and yellow ochers; small masses of native sulphur are also found. Chalybeate, sulphureous and aluminous springs are also met with. The island has several rivers, of which the Medina is the most considerable, running from north to south, and almost dividing the island into two equal parts. The face of the country is various and beautifully picturesque, and hence it is one of the favourite *trips* of the inhabitants of the inland

Hampshire.

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built by the Britons, and repaired by
It was one of the prisons of Charles
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Hampshire. dina, is a considerable place, and its road is the rendezvous of merchant ships waiting for convoy. Packets sail between it and Southampton and London. A castle mounting eight guns defends the port.

Ride, opposite Portsmouth, is a straggling village, from whence ships are usually supplied with butter, milk, and vegetables. St. Helens on the north-east side of the island is a village, in the road before which men of war usually lay, to wait for a fair wind, or to receive their final orders. Brading, at the east end of the island, is a little corporate town on a creek, forming a dry tide haven capable of receiving vessels of 400 tons, in which are taken great quantities of flat fish, whitings, and oysters. Sandown bay, on the east end, is protected by a small fort.

The coast of Hampshire, from Hurst Castle to Southampton, is lined by mud banks, which dry at low water and are frequented by great flocks of ducks and widgeons to feed on the sea-weed that covers them; in winter these birds are killed in great numbers by the fishermen of the neighbouring villages.

The first place east of the castle is Key Haven, a little tide port; to which succeeds Lymington, a corporate and borough town on the little river named Bolder Water. Vessels of 500 tons formerly went up to it, but the construction of a dam preventing the stream from carrying out the mud, the

the depth has decreased until it can now receive only vessels of 250 tons. The population of the town is 2,500, its chief business is the making of salt from sea water, which is exported both coastwise and to America. Hampshire.

Leap is a fishing hamlet, the usual crossing place to the Isle of Wight; to it succeeds Buckler's Hard on the river Beaulieu or Ex, a populous village where is a building place, from whence frigates are launched. The village of Beaulieu is three miles above the Hard, and vessels of fifty tons ascend to it. Near it are the beautiful ruins of Beaulieu Abbey, a Cistercian convent, in which Perkin Warbeck sought sanctuary in 1496.

Southampton Water is an inlet of the sea ten miles long and one to two broad. The entrance is defended by Calshot Castle, on the west point, a small fort erected by Henry VIII. Ascending along the west shore, the places in succession are Hythe, a beautiful little hamlet, from whence a ferry-boat crosses to Southampton. Eling, where small vessels are built for the navy. On the east shore of the water are Bursleton or Hamble on a creek, near which are the romantic grounds of Nettley Abbey, whose ruins are considered amongst the most pleasing objects of the kind in England.

Southampton is a town and county situated on a point of land at the confluence of the Test and Itchin, seven miles from the entrance of Southampton Water. It contains 7 or 8,000 inhabitants,

Hampshire. and has a large trade, chiefly to Portugal, for wine and fruits, and to the Baltic for naval stores. It is also allowed by act of Parliament, to export 6,000 tons of raw wool to Guernsey and Jersey, which is returned to England chiefly in knit stockings, caps, and jackets. The foreign trade employs about fifty vessels, that to Guernsey twenty to thirty small craft of twenty-five to fifty tons; the town has besides about 100 coasters. Passage vessels sail between this port, Cherbourg, the Isle of Wight, and Portsmouth. It is also a fashionable summer resort for sea bathing. Above Southampton are the villages of Millbrook and Red Bridge, where small king's vessels are built. Between Southampton Water and Portsmouth is Tichfield Lake, where considerable quantities of salt are made.

PORTSMOUTH, the second marine arsenal of England, is entered through the road named Spithead, between the Isle of Wight and the main, which is perfectly secure in all winds; and here is the grand rendezvous of the fleet as well as of the trade, from all the ports to the east waiting for convoy down channel, so that it was not unfrequent in the late war, for 1,500 vessels to sail at one moment. The Mother Bank is a part of the road near the Isle of Wight, where East-Indiamen anchor as well as ships of war under quarantine.

Portsmouth Harbour is formed at the mouth of the river, which is so narrow that but one ship can enter or go out at a time and only with a fair wind. The tide flows in for seven hours and ebbs out

out in four, by which increased rapidity the channel is constantly scoured out, and the mud forms a bank before it, named the Spit, from which the road has its name. Hampshire.

On the east shore of the harbour are the towns of Portsmouth and Portsea adjoining, and the naval arsenal, of which no description can give an adequate idea. The machinery worked by steam for the making of blocks and other purposes, is perhaps the most perfect and curious thing of the kind in the world, and the least number of men employed in the dock-yard, is said to be 2,000 in peace.

The fortifications of Portsmouth and Portsea are as strong as art can make them, and the ramparts of the former planted with trees, form a pleasant walk.

On the west shore of the harbour opposite Portsmouth is Gosport, a large town chiefly frequented by merchant vessels, and from whence a packet sails every week to Havre de Grâce.

On a peninsula west of Gosport, which forms the west side of the harbour's mouth, is Haslar Naval Hospital, capable of receiving 2,000 patients. A little west of it is Monkton Fort, a modern and regular fortification mounting thirty-two heavy guns, but of very little use where it is placed. The entrance of Portsmouth Harbour is more effectually defended by a very strong blockhouse on the west point and by the guns of Portsmouth works.

Ascending the harbour of Portsmouth we meet Porchester

Hampshire. Porchester Castle, a very ancient building on a projecting point of land, which has latterly been used as a depot for prisoners of war. The village of Porchester near it is a thriving place. On the western branch of the harbour is Fareham, a town of 3,000 inhabitants, which does a great deal of business respecting the fleet.

A mile south of the harbour's mouth is South Sea Castle, first constructed in the reign of Henry VIII. to defend the coast. Farther east is Langstone Harbour, a large lagoon, but crossed by a bar that admits only vessels of fifty tons. It is formed between Portsea Island on the west, and Hayling Island on the east. This latter contains 5,000 acres of surface chiefly arable. The harbour abounds in excellent oysters. Cumberland Fort on the west shore defends the entrance. Emsworth is a thriving village on the borders of Sussex, accessible to small craft through Langston and Chichester harbours.

Sussex. The county of Sussex is separated from Hampshire by Chichester Harbour, which goes in between Hayling Island on the west, and Selsey, Thorney, and Pilsey Islands on the east. Selsey Island terminates to the south, in a point called Selsey Bill, off which are many shoals abounding in cockles. Bracklesome Bay is before the entrance of Chichester harbour: vessels of burden enter this latter but cannot approach CHICHESTER within two miles. This city has the privileges of a county

a county and is situated on the Lavant, which almost surrounds it; it contains 6,700 inhabitants.

Pagham is a small tide haven, to which succeeds Bognor or Hothampton, a modern village, rising into notice as a sea-bathing place. The Bognor Rocks lay two miles off shore, west of the village. Little Hampton at the mouth of the Arun, is also a small sea-bathing place, its river is celebrated for its trout, eels and mullets; small craft ascend it to Arundel, four miles from its mouth. Worthing, from a poor fishing hamlet, by the resort of sea-bathers, has become a thriving village, with all the usual accommodations for amusement, as assembly and reading rooms, &c.

New Shoreham is a borough town of 800 inhabitants on the Adur and Beading, which form a tide haven with but three feet at low water and eighteen feet high water springs; the entrance is also obstructed by shifting sands. The chief business is ship building, vessels of 700 tons being built here. It has a custom-house. A considerable part of Old Shoreham has been washed away by the sea, and it now contains not above twenty houses.

Brighton (properly Brightelmstone) is the largest town of Sussex, and the most fashionable sea-bathing place of England; its resident population is 12,000, and it is thought that an equal number of strangers visit it every season. It is situated at the bottom of a bay between Worthing Point and Beachy Head. It has no port, but vessels unload close to the shore, sheltered by a jetty constructed

to

to defend the town from the attacks of the sea, which in 1699 in particular washed away 130 houses. At present the western waves wash up a great quantity of sand and gravel. One hundred boats are employed in the herring and mackerel fisheries, which produce a profit of £10,000 a year. A packet sails every week to Dieppe.

New Haven, at the mouth of the Ouse, has a small tide haven, and loaded boats ascend several miles above Lewes, which is seven miles from the sea: the entrance is defended by a small fort. Seaford is now an insignificant fishing village, but sends representatives to Parliament, and is one of the cinque ports; on the beach is a small fort, and on a cliff west of the town is a signal post. Eastbourne is a sea-bathing village in a valley surrounded by hills.

Beachy Head is a bluff projecting point forming the extremity of the tract of elevated land called the South Downs, on which vast flocks of sheep are pastured. Between it and Hastings are Enbourne and Pevensey; the latter at the mouth of a rivulet, and near it are the ruins of a magnificent castle erected by the Saxon kings, covering an area of seven acres. There are reasons to suppose its having been formerly on an island, though now two miles from the sea. Bulverhithe, Bexhill and Nuntide Haven, are east of Pevensey. Nuntide is supposed to be the spot where William I. landed.

Hastings, a corporate borough and cinque port town, is built between two hills, its population is 3,000.

3,000. Though its harbour is entirely filled up, it has several coasters employed in bringing limestone from Beachy Head, which after being burnt is exported. It has also a considerable share in the herring and mackerel fisheries for the London market, builds boats, and is a sea-bathing place. On a lofty rock west of the town are the ruins of an ancient castle, and near them a fort of eleven twelve-pounders.

Govers and Ecclesbourne, between Hastings and Winchelsea, are sea-bathing villages. Winchelsea, a borough and cinque port town, is now one mile and half from the sea, and reduced to a few houses. The ruins of Winchelsea or Camber Castle one of those erected by Henry VIII. are two miles N.E. of the town.

Rye, a corporate and cinque port town, is situated on the Rother, whose mouth being nearly choaked up with sand, a new channel was cut for it in a more direct line to the sea, and forms what is now called Rye New Harbour, which receives vessels of 200 tons to the quay of Rye two miles and a half from the entrance. It exports some corn and malt and has a good share in the herring, mackerel, and flat fisheries.

The Rother, which separates the counties of Sussex and Kent, formerly emptied itself at the town of Old Romney, but in a great storm in the reign of Edward I. changed its course to Rye. Old Romney has not above twenty houses, and

Appledore,

Kent. Appledore, which was also accessible to sea vessels by the Rother before the change, is reduced to fifty houses.

Dengeness, the S.E. point of Kent, is a low long point, with a light-house 110 feet high, the property of Mr. Coke of Norfolk, and which affords a revenue of £400.

New Romney is a corporate borough and cinque port town of 500 inhabitants, at present, by the retiring of the sea, two miles and a half from the shore. The whole of the tract between this town and Hythe is a deposit of the sea named "Romney Marsh;" it is preserved from the action of the waves by a great dyke called Dymchurch Wall, three miles in length; the slope of the dyke towards the sea is strengthened by piles and faggots pegged down; three sluices let off the superabundant water, the level of the sea at low water being lower than that of the marsh. The repairs of the dyke cost £4,000 per annum, and are defrayed by the owners of the ground. The whole of this tract is a pasture for sheep.

Hythe, a corporate and cinque port town, is near a mile from the shore; it has about 200 houses, and near it are several batteries and barracks. Sandgate is a village at the foot of a hill, with a castle mounting a few guns.

Folkstone, a corporate town and member of Dover, chiefly inhabited by fishermen, has a haven formed recently by a pier of stones without mortar, enclosing a basin of twenty-four acres. Two hoys sail from hence to London every week.

Dover

Dover, one of the most celebrated port towns of England, from its situation with respect to France, has 7,500 stationary inhabitants, but the influx of strangers usually increases the population to double that number; it is a borough and cinque port. The haven is formed by a pier, and is kept clear by the current of the little river Idle, which falls into it; the depth at high water neaps is fourteen feet, and at springs eighteen to twenty feet, so that it is capable of receiving vessels of 500 tons, and there is an instance of a Dutch loaded East-Indiaman of 800 tons being brought into it in distress. Five post-office packets are kept in constant employment here for France, besides about thirty passage vessels which pass backwards and forwards every tide; the run to Calais with a fair wind being not above three or four hours. The port is defended by two forts, as well as by Dover castle on a cliff east of the town. This castle presents a singular appearance, having been constructed at various periods from the time of the Roman possession of the country almost to the present time; it occupies an area of thirty-five acres, and has accommodation for 3,000 men. Near the edge of the cliff is the celebrated brass cannon called Queen Elizabeth's "pocket pistol," having been presented to that princess by the States General of Holland; it is twenty-four feet long, and carries a twelve pound ball, but is entirely useless. South of Dover is an object more worthy of notice, the cliff so inimitably described by Shakespeare.*

* Lear.

Kent. Between Dover and the South Foreland are Eastware and St. Margaret; the latter has a pier for fishing boats, and in its bay are taken quantities of small but very delicate lobsters. This part of the shore is composed of sand downs, extend from Peperness to Deal, and a quarter of a mile in breadth. The South Foreland is a cliffy point, on which are two light-houses. Between it and Walmer are the bathing villages of Old Stairs and Kingsdown. Walmer Castle, a mile south of Deal, is the residence of the lord warden of the cinque ports, and near it is a pleasant and genteel village. Sandown Castle, between Walmer and Deal, consists of a round tower with four circular lunettes encircled by a ditch. This castle, as well as those of Walmer and Deal, was constructed by Henry VIII. when he feared an invasion of the kingdom, in consequence of his disputes with the see of Rome.

DEAL is a corporate town of 5,000 inhabitants, on an open bay lined by a beach of pebbles, on which there is often a violent surf. Opposite the town four miles distant are the Goodwin Sands, extending parallel to the shore ten miles; they are composed of a quicksand, and dry in several parts at low water, when the sand becomes so compact that it is impossible to penetrate it, but when the tide again covers them, the sand loosens in a manner that a vessel striking on them is instantly so imbedded, as to render it impossible to get her off, and in a few days she totally disappears under the sand. It was in contemplation to erect a light

light-house on this sand, but after boring several feet, no base to form a foundation being found, the idea was abandoned, and a floating light was moored in nine fathoms depth at the north east extremity of the bank. Though this sand is occasionally fatal to ships, it is of material utility in sheltering the road between it and Deal called the "Downs" from east winds, and rendering it tolerably secure, so that it is a grand rendezvous of convoys, and a station of the royal North Sea fleet in war. Vessels also stop in this road to discharge or take pilots to and from the Thames, and frequently for the purpose of procuring spirits, tea, &c. which are smuggled on board by the Deal boatmen, who procure them from France. A more honourable source of the prosperity of Deal is derived from the assistance its boats and pilots afford to ships in distress, the intrepidity of the Deal men in these cases being unparalleled. Kent.

SANDWICH on the Stour, six miles from its mouth, is a borough and cinque port town of 6,000 inhabitants; it is badly built, but receiving vessels of ten feet draft; it has a considerable trade, chiefly in the export of malt to London.

The ISLE OF THANET is the north-east land of Kent, and is separated from the main by the river Stour, and a rivulet called the Sair, communicating with the Stour, and emptying itself near Reculver on the north. The valley through which the Stour now runs was anciently a wide and navigable channel, through which all vessels passed from the Downs into the Thames. It is noticed

Kent. by Tacitus under the name of *Portus Rutupensis*, and described as having two entrances, that on the south defended by the castle of *Rutupiume* (Rich borough), and on the north by the castle of *Regulbium* (Reculver). When Bede wrote this channel, then named *Wantsumen*, was still "three roods" broad, and in the middle of the sixteenth century loaded vessels passed through it. At present Richborough Castle is considerably inland, the sea having formed new lands on this side of the island, while on the north it constantly encroaches, and has washed away a part of Reculver castle. The shores of the island are in general composed of chalk cliffs, in which are found *Cornua ammonis*, measuring three feet in diameter.

Ramsgate is a flourishing town of 3,000 inhabitants; its haven is formed by two piers enclosing a basin of forty-six acres, with fifteen feet depth at high water neaps, so that it receives vessels of 500 tons. The piers are of Portland stone, and the eastern one, after running out in a straight line 800 feet, curves round, its whole length being 2,000 feet, and its breadth at top, including a parapet wall, twenty-six feet; the western pier is 1,500 feet long, and the breadth of the entrance 240 feet. There being no natural back water to scour out the port, this effect is produced by means of sluices, which retain the tide water, the whole being the most perfect example of the formation of an artificial haven. Its total expense amounted

amounted to upwards of £600,000. The preservation of the harbour is provided for by a duty on all vessels between twenty and 300 tons passing Beachy Head of one penny per ton, and 3*d.* on every chaldron of coals and ton of stone imported to London. This harbour is of the most imminent utility to commerce, being so situated that vessels driven from their anchors in the Downs in gales of wind can always run into it if the tide answers, and be perfectly secure. It has also a dry dock for repairing vessels that may have suffered damage. On the west pier head is a light-house, on which the light is shewn when there is ten feet water on the flood between the piers, and kept burning until there is the same depth on the ebb; during the day a flag is used to denote the depth. The port is protected by a castle. It is a member of Sandwich, and has some trade, chiefly to the Baltic, for naval stores.

Between Ramsgate and the North Foreland are Dumpton Stairs, and Broad Stairs, sea-bathing villages, with piers for boats.

The North Foreland, supposed to be the *Cantium* of Ptolemy, is the N.E. promontory of Kent, and the south point of the "Gulf of the Thames;" it forms in three points, named Longnose or Foreness, the N.W., Whiteness the middle, near which is Kingsgate, a bathing village on a break in the cliffs, and Eastness on the S.E. On the latter is a light-house, seen ten leagues, which as well as that on the South Foreland belongs to Greenwich Hospital; the toll of them is 2*d.* per ton of na-

Kent. tional vessels, and 4*d.* of foreigners. Between the North Foreland light and Kingsgate are two tumuli, thought to be the graves of the slain in a bloody battle fought here between the Danes and Saxons.

EAST COAST OF ENGLAND.

The East Coast of England properly commences at the North Foreland, and the first place west of it is Margate, a straggling town on a break in the cliffs, chiefly noticed as a sea-bathing place; it has a little pier haven, and partly supplies London with fish, particularly skait, wraiths, small cod, haddock, turbot, whiting, soles, mackerel, herrings, lobsters and oysters. Eight passage-boats or hoys constantly ply between this port and London from the 4th of June to the middle of October; the passage is from nine to twenty-four hours. It is not unworthy of remark, that Margate lays so directly exposed to the north, that a vessel sailing from it on a N.¼E. course would not strike land until she reached the coast of Greenland in latitude 75°, a distance of 1,380 miles.

Birchington is a pleasant village on an elevation half a mile from the shore. Reculver is a little village, near which are the ruins of the ancient castle, and great numbers of Roman coins and medals are dug up in the vicinity. On Hearn Bay is a small bathing village, which also exports corn to London by two hoys of sixty tons. Whitstable

stable street is a small populous village, chiefly inhabited by oyster dredgers, those fish being sent from hence to London, in which business seventy or eighty boats are employed. It is also visited by colliers, who discharge their coals here for the supply of Canterbury. Kent.

Faversham on the Swale is a town of four streets, and a member of the port of Dover; it has three wharfs, at which vessels of eighty tons discharge and load. Its chief business is the export of corn (40,000 quarters) to London, besides hops, fruits, wool and oysters, and the import of naval stores from the Baltic; it has thirty coasters of from forty to 150 tons. It has a custom-house. Milton, west of Feversham, is celebrated for its oyster fishery, which produces from three to £7,000 a year.

The Isle of Sheppey forms the east side of the entrance of the River Medway, and is separated from the main by the channel called the Swale, navigable by vessels of 300 tons; it was anciently the usual passage into the Thames by ships coming round the North Foreland, but has long been disused except by the coasters bound to the ports on it. The passage to the island from the main is by ferry-boats hauled across by cables, the distance being 150 fathoms Sheppey is eight miles long and three broad; the north shore is composed of clay cliffs eighty feet high, which as they crumble away bring to view a variety of fossil remains, as the teeth and vertebræ of fishes, grains of oats, petrified wood, &c. On the north-west point of

Kent. the island, forming the entrance to the Medway, is the town of SHEERNESS, containing 2,000 inhabitants. Here is a royal naval arsenal, chiefly intended for building and repairing frigates. This town was without fresh water until 1781, when a well was dug to the vast depth of 328 feet before water was arrived at (the last 150 feet through a bed of chalk); at last the boring augur sunk in, and the water rushed up with such velocity, that the workmen were with difficulty drawn up in time to escape drowning. In six hours the water rose 189 feet, and in a few days was within eight feet of the top, where it remained stationary, and has ever since continued to afford an ample supply. A strong fortress at Sheerness defends the mouth of the Medway. The road called the Nore is opposite the north end of Sheppey Island; it is the usual anchorage of ships of war from Chatham, Sheerness and Woolwich waiting for final orders. A floating light is moored here. Queenborough is a small borough town two miles and a half south of Sheerness.

The Medway rises in the Wolds of Sussex, and runs east to Maidstone, thence to Chatham, and empties itself into the same gulf as the Thames at Sheerness, from which to Chatham is sixteen miles, and the largest ships ascend to this latter. Barges of sixty tons go up to Maidstone, and lesser craft to Tunbridge. This river formerly abounded in sturgeon, but they are now rarely met in it; it has, however, a good salmon and oyster fishery.

CHATHAM, the third naval arsenal of England, is a large

a large straggling and ill-built town; its dock yards employ 3 to 4,000 men in war. It is well fortified. Rochester, a mile above Chatham, is an ancient town with a magnificent cathedral. Kent.

The THAMES rises on the confines of Gloucester, then passes through Oxford, Abingdon, Wallingford, Reading, Marlow, Windsor, Kingston, and Richmond, to London, sixty-two miles below which, and after a course of 250 miles, it empties into a gulf by many channels between sand banks, one of which is worthy of particular mention from the quantity of broken vessels of earthen-ware and even whole *pans* brought up from it in the oyster dredges, whence it has been named "Pan Sand." Some persons have supposed that it was anciently an island on which was a manufacture of pottery, but tradition accounts for it by the sinking of a vessel with a cargo of this ware.

The Isle of Grain bounds the entrance of the Thames on the south, being separated from the main by a boat channel called the Scrag. The island is composed of low marsh embanked from the sea. The breadth of the river's mouth is here four miles; it is navigable for the largest ships to Deptford, for small frigates to the tower of London, and for barges to Lechdale in Oxfordshire, 230 miles from the sea. The tide flows up to Richmond, ten miles above London bridge.

The first place on the Kentish bank of the river is GRAVESEND, a corporate town of several narrow dirty streets and 4,000 inhabitants, almost all engaged in shipping business, and particularly in

Kent. supplying live stock and vegetables to outward-bound ships. It has twenty smacks employed in the cod and haddock fishery in the British or North Sea, and is the usual rendezvous of the Dutch turbot boats, from whence they send their fish to Billingsgate. Passage boats sail every tide between Gravesend and London, the fare being a shilling. There is also a ferry to Tilbury Fort on the opposite side of the river.* Gravesend is considered the termination of the port of London, the conservancy of which is vested in the corporation of the city.

Woolwich, eight miles below London, is a naval and military arsenal, and grand depot of the kingdom for ordnance. The naval yard is under the immediate superintendance of the navy board, and employs 1,500 men in peace and from 3 to 4,000 in war.

Greenwich, four miles from London, is noted for its magnificent hospital for disabled seamen of the royal navy, and for its astronomical observatory, from which we reckon the longitude. The Thames is here 350 yards wide, and presents beautiful scenery.

Deptford, one mile above Greenwich, is a large and busy town of 18,000 inhabitants, at the

* In 1798, a plan was adopted for forming a communication between the two shores at these points, by an arched *tunnel* under the bed of the Thames, and this stupendous work was commenced at the Gravesend side, but the water soon began to impede the workmen, and at length obliged the idea to be relinquished. The tunnel was to have been constantly lighted by lamps, and to have been capable of the passage of waggons.

the mouth of the little river Ravensbourne. There is a King's dock yard under the immediate inspection of the Navy Office, which employs 1,000 artificers in peace and 1,500 in war. It has besides two large private ship-building yards, where seventy-four gun ships are sometimes built by contract. Kent.

The Thames separates the counties of Kent and Essex; the point of the entrance on the latter shore is named Shoeberry Ness, four miles north of Sheerness. Ascending the river the places in succession are Southend a bathing village, a little above which a stone marks the limits of the jurisdiction of the corporation of London, on this side. Rayleigh an inconsiderable village inhabited by oyster dredgers. Canvy island separated from the main by Hadley Bay, navigable only by small craft. Essex.

Tilbury Fort, opposite Gravesend, is a regular fortress built in the reign of Charles II, to defend the passage of the river. Gray Thurrock, a small town on a creek of the Thames, navigable by hoys.

The Port of London, in the legal definition of the term, extends from the North Foreland and Shoeberry Ness to London Bridge; but the port, as far as it regards the loading and discharging of ships, is confined to the reach of the river between Deptford and the bridge, a distance of four miles, and from 400 to 500 yards in breadth. That space between Limehouse and the bridge is named the London.

Pool,

Pool, and can receive 800 vessels who lay afloat at low water; those of lightest draft nearest to the bridge. The Thames, in its passage through London, is to be considered more with respect to commercial utility than beauty, the latter having been entirely sacrificed to the former, and with the exception of some few spots, as Somerset House, the Adelphi, the Temple, &c. the magazines either project into the river, or it is lined by dirty coal and timber wharfs. Indeed, there cannot be a less engaging *coup-d'œil* than from the centre of Black Friar's Bridge, when the tide is out; the muddy flats of the shore covered with coal barges and rafts of deal timber, being the prominent feature. A moment's thought, however, brings to recollection that it is in great measure to her commerce that England owes her high place in the scale of nations, and the mind feels satisfied with what the eye rejects. The wharfs being very inadequate to the increased commerce of London, various docks have been within a few years excavated to receive the different branches of the trade, and are the most superb works of the kind in the world. The first commenced was a navigable canal through the Isle of Dogs, and on the north side of the canal, docks, wharfs, and magazines, for the West India trade. They were begun in 1800 and completed in 1802. The homeward-bound dock is 2,600 feet long and 500 broad, capable of receiving 300 vessels of 300 tons and upwards. The outward-bound dock is also 2,600 feet long and 400 broad. They communicate

municate by means of locks, but are separated and surrounded by high walls. In 1802, an act of parliament passed incorporating a London Dock Company, and docks and warehouses were constructed in the angle of the river below Wapping. The length of the dock is 1,260 feet and the breadth 690, containing twenty acres and capable of receiving 230 vessels of 300 tons and upwards. The warehouses for storing tobacco and wine, cover five acres, and the whole is surrounded by a wall.

The East-India Dock act was passed in 1803, and the work commenced in 1805. The discharging dock is 1,410 feet long and 360 wide, containing eighteen acres and a half. The loading dock is 780 feet long and 520 wide, containing nine acres and a quarter. They are entered from the river by a basin of two acres and three quarters. The entrance lock is 210 feet long and the gates forty-eight feet wide, the depth in ordinary spring tides is twenty-four feet.

The following is a statement of the foreign trade of London in 1795:—

SHIPS ENTERED FROM.	BRITISH.		FOREIGN.		TOTAL.		PRINCIPAL ARTICLES OF IMPORTATION.
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	
America.....British	83	15,732	—	—	83	15,782	Furs, Fish, Skins, Corn.
America.....United States	3	490	175	36,109	178	36,599	Tobacco, Corn, Rice, Indigo, Furs, Wood.
Africa	5	656	3	420	8	1,076	Fruit, Wax, Gum, Elephants' Teeth, Guinea-Wood, Palm Oil.
Azores	9	658	2	176	11	834	Fayal Wine.
Barbary	4	399	—	—	4	399	Copper, and some of the Articles under the Head of Africa.
Bremen	—	—	31	5,324	31	5,324	Linen, Corn, Timber, Wine.
Canaries	4	516	—	—	4	516	Wine.
Cape de Verd	—	—	—	—	—	—	Skins, Hides, Horns.
Corsica	18	5,399	—	—	18	5,399	Small Quantities of Honey and Wax.
Courland	—	—	1	70	1	70	Iron, Deals.
Denmark and Norway	20	2,436	177	52,649	197	55,085	Fir, Timber, Deals, Corn, Iron.
East Indies	63	46,221	—	—	63	46,221	Tea, China, Drugs, Calico, Muslin, Nankeens, Pepper, Raw Silk, manufactured Linens, and Cottons, Sugar, Cotton-Yarn, Saltpetre.
Flanders.....Austrian	—	—	24	2,032	24	2,032	Hemp, Silk, Brandy, Cotton.
Flanders.....French	—	—	11	1,257	11	1,257	
France	9	2,297	45	4,479	54	6,776	Oil, Wine, Fruit, Cotton, Glass, Brandy, Plaister of Paris, Madder.
Florida	2	499	—	—	2	499	Skins.
Genoa	—	—	1	130	1	130	Silk, Skins, Wine.
Germany	127	28,075	128	27,317	255	55,392	Linen, Linen-Yarn, Timber, Deals, Wine, Corn, Smalts, Hides, Rags, Oak-bark, Skins, and now Streights Silk, Brandy, Geneva.
Gibraltar and Strait	8	1,870	—	—	8	1,870	Silk.
Greenland and Davis' Straits	10	2,864	—	—	10	2,864	Blubber, Whale-fins.
Guernsey, Jersey, &c.	41	4,168	6	872	47	5,040	Paving-stones, Wine.
Honduras	5	1,122	—	—	5	1,122	Logwood, Mahogany, Fustic.
Carried forward....	411	113,402	604	130,835	1,015	244,237	

SHIPS ENTERED FROM.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	
Brought over	411	113,402	604	130,835	1,015	244,237	
Holland	9	1,226	44	6,271	53	7,497	Corn, Wine, Geneva, Brandy, Wainscot-boards, Oak-bark, Drugs, Madder, Smalts, Flax, Hides, Cast-Iron, Linen, Provisions, Seeds, Skins, Furs, Snuff, Cotton.
Ireland	323	34,594	2	260	325	34,854	Provisions, Linen-Yarn, Linen, Cattle, Corn, Skins, Hides, Tallow, Woollen-Yarn.
Italy	2	241	—	—	2	241	Silk, Oil, Wine, Marble, Chip-Hats, Fruit, Paper, Drugs, Rags, Madder, Valonia, Skins, Cotton.
Leghorn	40	6,986	3	470	43	7,456	
Livonia	62	15,123	—	—	62	15,123	Hemp, Iron, Deals, Timber, Masts.
Naples	5	605	—	—	5	605	Fruit, Oil, Skins.
Nootka Sound	—	—	—	—	—	—	Skins.
Portugal	116	17,413	27	3,146	143	20,559	Wine, Fruit, Cork, Salt, Cotton.
Poland	57	12,535	27	6,360	84	18,895	Corn, Timber, Deals, and some Linen.
Prussia	121	23,047	166	24,885	287	47,932	Timber, Corn, Skins, Linen-Yarn.
Russia	196	47,461	2	480	198	47,941	Masts, Iron, Deals, and other Timber, Linen, Tallow, Hemp, Pitch, Tar, Ashes.
Sardinia	3	411	—	—	3	411	Fruit.
Sicily	3	320	—	—	3	320	Brimstone, Barilla.
Southern Fishery	23	5,026	—	—	23	5,026	Oil, Whale-fins, Spermaceti, Skins.
Spain	103	14,698	33	5,192	136	19,890	Wine, Fruit, Oil, Barilla, Skins, Wool, Hides, Drugs, Cork, Brandy.
Sweden	10	2,109	78	10,337	88	12,446	Iron, Deals, Corn, Pitch, Tar.
Turkey	4	846	1	200	5	1,046	Fruit, Mohair, Cotton, Carpets, Box-wood, Madder, Gums, Opium, Silk.
Venice	13	1,374	4	700	17	2,074	Fustic, Fruit, Drugs.
West Indies and Madeira — British	339	91,655	—	—	339	91,655	Sugar, Rum, Coffee, Cocoa, Cotton, Indigo, Mahogany, Dying-woods, Fustic, Ginger, Gum, Drugs, Hides, Tortoise-shell, Wine.
West Indies and Madeira — Foreign	1	245	—	—	1	245	
Total	1,641	389,317	991	189,136	2,632	578,453	

London. In 1792, the exports of London amounted to £14,742,000; the French revolution reduced them in the following year to £12,660,000. This effect was however but temporary, in 1796, the exports being £18,410,000, and the imports £14,719,000. In this year 2,007 British ships, 486,843 tons, entered the port and 2,167 foreign of 277,142 tons, besides (including repeated voyages) 11,176 coasters of 1,059,915 tons. The river navigation in the same year employed the following craft.

2,596	barges of 33 tons	each, 400 of which were employed in the deal, and the remainder in the coal trade.
402	lighters of 39 tons	
338	punts of 20	
57	boats of 24	
6	sloops of 27	
10	cutters of 71	chiefly pleasure vessels
10	hoys of 53	
3,419	Total tonnage 110,156.	

In 1700, the number of trading vessels belonging to London, was 560 of 84,882 tons, and 10,068 men. In 1800, the number of vessels was 2,666, the tonnage 568,262, and the men 41,402; of these numbers the East-India Company's shipping was 122 vessels, 106,041 tons, and 10,000 seamen.

From

Essex.

From the entrance of the Thames a considerable extent of the coast of Essex is formed of marshy islands, of which that named Foulness is the largest. Rocheford on a creek, named Broomhill River, receives lighters; its population is 1,228. Burnham on the Crouch is a village accessible to small craft.

The Blackwater is a large estuary formed by the confluence of the Chelmer and Pant. It receives vessels of 400 tons, and those of eight feet ascend to MALDEN, a town of 2,500 inhabitants, at the confluence of the rivers. The Isles of Osey and Ramsey in the Blackwater are covered with vast flocks of wild ducks in winter, which are shot in great quantities for the London market.

Mersey Island, between the Blackwater and the Colne, is separated from the main land by a narrow creek called the Pylfleet, in which the most esteemed oysters are taken. The island is entered from the main by a bank dry at low water.

COLCHESTER, the principal town of Essex, is on an eminence on the Colne, a league from its mouth; it has 11,500 inhabitants, and receives vessels of 300 tons with the tide, and large vessels ascend to Wivenhoe where is a ship-building establishment from whence frigates have been launched.

Colchester was a Roman station and quantities of Roman coins are dug up in it; near it are the ruins of a castle built by William I.

The Stour separates the counties of Essex and Suffolk, and is navigable with the tide to Maningtree,

tree, a small irregular town. On the south point of the entrance of the river is HARWICH with a harbour capable of receiving 500 vessels; its chief business is ship building, two deckers being built here for the navy. It also employs 3,000 tons and 500 men in the North Sea fishery, and is the port of communication with Holland and Germany, packets sailing regularly to Helvoetsluys and the Elbe. It is also a frequented sea-bathing place. The entrance of the Stour is defended by Landguard Fort on the opposite point of the river to Harwich and distant two miles and a half from it, but commanding the channel which is close under the fort, a great bank running from the south shore. This fortress, built in the reign of James I., is on a point of land insulated at high water, by an expanse of water nearly a mile broad; it is in the county of Essex.

The coast of Suffolk is in general formed of low cliffs of sand and loam, upon which the sea easily acts, and carries away a part of them every year, so that the encroachment since the epoch of the Doomsday Book is found to be in some places, one mile, one furlong, and nineteen perches. The greatest effects have been between the Deben and Southwold. IPSWICH, on the Orwell, is the chief town of the county, and is built on the side of a hill; its population between 13 and 14,000 inhabitants. Small ships ascend to the town, but vessels of burden lay at Downham Reach, three miles

miles below it: the port is nearly dry at low water but the tide rises twelve feet. Ipswich has two ship building establishments. Passage boats sail every tide between it and Harwich. The principal trade is in corn and malt to London. The Orwell is one of the most picturesque rivers of England and has many beautiful seats on its banks.

Felixtow is an agreeable village south of the mouth of the Deben, which forms the tide haven of Woodbridge thus receives small ships to its quays. Holsely village, at some distance inland, gives name to a bay which affords one of the best roads on this coast, being sheltered by the projecting point of Orford Ness on the north, on which are two lights.

The river Alde falls into Holsely Bay, it is of considerable size but of little other use than affording a pleasant navigation by pleasure boats, and having a good oyster fishery. The town of Orford is on it at the confluence of the Ore, and is a declined place from its port being choaked up. Near it are the ruins of a castle. Aldborough was anciently a considerable town, but the frequent devastations of the sea have washed away a great part of it and reduced it to an insignificant fishing village; the resort of sea-bathers has however lately caused its improvement, and it has a good herring and sprat fishery. The bay is defended by a Martello tower. North of Aldborough is a moor or marshy lake close to the sea.

Thorpe, Sizwell, and Mismere Haven, succeed to Aldborough; and then Dunwich, anciently a considerable

siderable commercial city,* but now a mean village of 184 inhabitants, situated on a cliff of considerable height, which the sea continually undermines and washes away.

The River Blythe falls into Walderswick Bay, and is navigable to Helesworth, a well built town of 1,600 inhabitants. Walderswick, now an inconsiderable fishing village, was anciently a considerable place, in 1451 having thirteen vessels trading to Iceland, Ferroe, and the north, and twenty-two fishing boats.

Southwold, on an eminence nearly surrounded by the Blythe, has 1,000 inhabitants; its haven is formed by two piers, and frigates are built here. It is defended by two batteries on the cliffs, one a regular fortification mounting six guns, and the other two. It is a sea bathing place. In the bay before it, named Solebay or Sowle Bay, was fought the bloody and drawn battle in 1672, between the English and French combined fleets under the Duke of York and Earl of Sandwich, and the Dutch fleet under de Ruyter.

Eastern Bavent is the remains of a village nearly washed away by the sea, which on this part of the coast has made such encroachments, that the point of Easternness, formerly the east point of England, has entirely disappeared. Covehithe a small fishing village.

Lowestoff, or Leostoff, is a handsome town on a cliff, now the east point of England, and commanding

* In 1347, it sent six ships and 102 mariners to the siege of Calais.

commanding a grand view of the sea. Its haven formed by two piers has five fathoms depth, and near it are two lights to direct vessels clear of the Yarmouth sands. The population is 2,400. It is a frequented bathing place, and has a good herring fishery. Opposite this town was fought the naval battle between the English and Dutch, in which the latter, commanded by Opdam, were totally defeated. Suffolk.

Corton, a small village on a cliff.

The coast of Norfolk is in general low, level, and without indentations or promontories, Hunstanton Cliff, or St. Edmund's Point,* being the most considerable projection. The shore in general presents sand-downs, with a low beach of pebbles and sand consolidated by the matted roots of sea reed grass, particularly the *arunda arenaria* and *arenaria peploides*. The downs extend almost without interruption from Caister, two miles north of Yarmouth, to Cromer Bay, where commences what are called the Mud Cliffs, which form the rest of the coast to Lynn Regis. Numerous dangerous banks lie off this coast far out at sea, particularly a large one parallel to the shore opposite to Yarmouth. Near Thornham a considerable track, now overflowed by the sea, Norfolk.

* Named from the supposition that King Edmund the martyr landed here to take possession of the kingdom of East Anglia.

Norfolk. appears to have been formerly a forest, abundance of the trunks and roots of trees being found in a mass of black fibrous decomposed wood. The beach here is a soft ooze. A great part of the hundred of Treebridge, on the west, has been gained from the sea by successive embankments, the innermost of which is thought to have been raised by the Romans.

The chief danger of the coast of Norfolk to navigation is from the configuration of the coast, for vessels passing Flamborough Head to the south if they meet with a hard gale between N.E. and S.E. get embayed in the dangerous gulf called the Wash, while those from the south with a gale from the N.E. if they are unable to weather Winterton Ness, must go on shore. In seeking to avoid the dangers of this coast, ships have frequently been wrecked on that of Holland, and particularly on the Hake Sands, misfortunes which probably have been generally caused by ignorance of the tides and currents.

Yarmouth, at the mouth of the Yare, is a considerable trading town of 15,000 inhabitants. Its haven is formed by two piers, and is the seventh artificial haven that has been formed here, and at present it requires an expense of two to £3,000 a year to keep it from filling up with mud. It has a handsome quay at which vessels lay to discharge.

Yarmouth has from early times been a commercial place; in 1346 it had forty-three ships and 1,075 mariners at the siege of Calais. In 1730 it had 1,100 registered vessels, and at present has about

about 300 exclusive of fishing craft,* but the superior size of the ships in some measure compensates the decrease in their number. Yarmouth Road, within the long sand already noticed, is the usual rendezvous of the colliers from the north, and during the late wars it was one of the anchorages of the fleet of ships of war employed in this sea. The port is defended by three forts and two batteries, and there are barracks for 1,000 men on the beach. The rise of tide here is five feet. Boats ascend the Yare from Yarmouth to Norwich; and the Waveney is navigable for barges from Yarmouth to Bungay Bridge, in Suffolk. The navigation to Yarmouth Road is pointed out by two light-houses, one at Garlestone, on the south, and the other on the north at Caister. Norfolk.

Winterton is a fishing village, east of which is the point named Winterton Ness, with many dangerous shoals off it, on which account there are three light-houses, the southern of which on Haseborough, has two lights; the middle one at Winterton Ness three; and that on Foulness one.

The places in succession from Winterton Ness are Happisburgh, or Haseborough, Mendilesley, Cromar, a fishing and market town on a cliff, has no haven, but colliers of seventy tons discharge in its road, named *Devil's Throat*, famous for its crabs. Cromar is also visited by sea bathers.

* See home fisheries.

Norfolk. North of Cromar are Beeston-Regis, Seringham; Cley, and Blakeney, little fishing towns on the same creek. Wells, a tolerable port, but difficult of access, from shifting sands. It has some trade with Holland in corn and malt, and a good oyster fishery.

Holkam, Burnham, and Brancaster Bays, are open roads, with villages of the same names, on creeks, accessible to coasters.

Hunstanstone is a village west of St. Edmund's Cliff, which is 100 feet high, and has a light-house seen seven leagues.

The Wash, *Metaris Æstuarium* of Ptolemy, is a great gulf filled with dangerous quicksands and receiving several rivers, the most considerable of which is the Ouse, remarkable for an occasional bore in high equinoctial tides, called the *Eager*. Its course is sixty miles, and it is navigable twenty-four miles above Lynn for barges, and for small boats to Bedford, forming a communication by its tributary rivers and by canals into seven of the inland counties.

Lynn Regis, the fifth commercial town of England, is on the Ouze, ten miles from its mouth, which is here nearly as wide as the Thames at London Bridge. Four small rivers run through and intersect it, and are crossed by bridges; it is surrounded on the land side by an old wall and wet ditch. Its haven can receive 300 sail. Its population is 10,000. Its trade is considerable to the Baltic, Norway, Holland, Spain, and Portugal.

gal. It imports 100,000 chaldrons of coals, and 2,000 pipes of wine. *Norfolk.*

The Nene and Weiland Rivers also fall into the Wash. By the former, barges ascend to Northampton, and by the latter to Spalding. The Nene separates Norfolk and Lincolnshire.

The greater part of the county of Lincoln, bordering on the sea, is composed of fens and marshland, which in their most ancient state appear to have been covered with forests, the trunks of great trees being found in the fens. At a subsequent period it was covered by the sea, from which it has been gradually recovered.* In the summer these fens present the rich appearance of luxuriant verdure and innumerable cattle and sheep grazing, but in winter they are in great part covered with a sheet of water, and the resort of vast flocks of wild aquatic birds, as geese, ducks, widgeons, teals, and others of the duck species; grebes, godwit, wimbrels, coots, ruffs, reeves, &c. The *Lincolnshire.*

* On the coast of Lincoln are many banks, called clay-huts, which dry at low water, the principal are off Aldethorpe and Maplethorpe; they are composed of roots, trunks, branches, and leaves of trees and shrubs, intermixed with leaves of aquatic plants. The kinds of wood are birch, fir, and oak. The opinion generally adopted and confirmed by the tradition among the inhabitants is, that an invasion of the sea, anterior to historical records, had submerged a tract of wood land; and after a lapse of time again retreated, having covered the trees with mud and sand, which became pasture land. A second invasion of the sea is supposed to have washed away this covering of mud, and to have exposed the original trees.

Lincolnshire. ducks are taken in *decoys*, and supply the London market, upwards of 100,000 birds being sent thither annually. The season for taking them is from October to February, and it is forbidden, by Act of Parliament, to take them from the first of June to the first of October, under penalty of five shillings for every bird. Great flocks of geese are also bred in the fens, and afford a profitable branch of commerce, as well in their carcases as their quills and feathers.

The fens are intersected by ditches, called *droves*, which separate the properties, and which communicate with larger canals, called *dykes* and *drains*, some of which are navigable by barges. All the fen-lands being below the high water mark of the coasts, when the drains are filled by the rains, the sluice-gates no longer carry off the water to the sea, while the sea water oozing through the under stratum of sea sand, assists in flooding the country. In dry summers, on the contrary, this tract suffers from the want of fresh water, there being no rivers and very few springs.

Boston, on the Witham, five miles from its mouth, has 6,000 inhabitants. The river having been recently deepened and the harbour improved, vessels of ten or eleven feet ascend to the town, and load corn for London. It also communicates with Lincoln by a canal.

Wainfleet is a market town of 500 inhabitants, on a creek through which the River Limb flows into Boston Deep. A portion of the waters which formerly emptied themselves by this river having been

been conducted into the Witham, in the process of draining the fens, the port of Wainfleet has suffered a proportionate injury, though small craft still visit it, chiefly for shelter. Lincolnshire.

Skegness is still a poor fishing village, as it was when Leland wrote, who thus describes it: "Skegnesse sometime a great haven town, was once wallid, having a castle; the old town clean consumed and eaten by the sea. For old Skegnesse is now buildid a poor new thing." *

Saltfleet, or St. Peter's, on a creek, is a village of 230 inhabitants; and Tetney, also on a creek, has 450. Vessels from sea enter this creek, and by a canal ascend to Louth, bringing timber, coals, groceries, &c. and taking off corn and wool.

The Humber, *Abus* of Ptolemy, is a great estuary which receives almost the whole of the waters of Yorkshire, by the river Ouse, and a considerable portion of those of the southern midland counties, by the Trent. At the confluence of these rivers it is a mile wide and increases in breadth towards the sea, into which it empties itself between Grimsby on the south, and Spurn Head on the north.

Entering the Humber along the south shore, the first place is Humberston, on a creek one mile and a half from the sea; Cleathorpe, south of a point named Cleaness, a fishing village and watering

ing

* Lin. vol. iii. page 60.

Lincolnshire.

ing place. GREAT GRIMSBY, an ancient borough, market, and port town,* had greatly declined by the choaking up of its port; but this having been latterly improved, and a dock built, it has again began to revive.

Barton, a market town of 1,700 inhabitants, was of some consideration before the foundation of Hull,† which has attracted its trade, though some corn is still exported to London. It also derives considerable advantage from being the usual crossing place of the Humber to Hull, well furnished passage-boats crossing every tide.

Ferraby and Whalton are villages of 300 to 400 inhabitants.

The TRENT rises in Staffordshire, and by means of its tributary rivers and canals affords a communication with several of the inland counties.

Vessels of 150 tons ascend the Trent to Gainsborough, and export its corn to London; it has also some trade to the Baltic.

Yorkshire.

The S.E. part of the coast of Yorkshire is named Holderness. Entering the Humber at the Spurnhead, we find that the sea has greatly retreated, and thereby formed considerable tracts of new land; that named Sunk Island began to rise above the water in the reign of Charles I., and as it increased it was embanked in, and now contains 4,500

* It supplied eleven ships and 170 mariners to the siege of Calais.

† Furnished five ships and ninety-one men to the siege of Calais.

4,500 acres of pasture land, and has a church built on it; 500 acres are also left dry at low water, and may be recovered by embankment. Yorkshire.

On the eastern sea-shore of Holderness the sea has on the contrary greatly encroached, and washed away several towns and villages, particularly the famous sea-port of Ravenspur, whose site is even unknown. The last great catastrophe was in the reign of Edward III. when the sea rushed towards the shore with terrible fury, and the Humber swelled to an extraordinary height.

Patrington, on a creek a mile from the Humber, is a considerable village, and receives small craft.

Hedon, farther west, is a market town of 1,000 inhabitants, which formerly had a harbour, but the retreat of the sea leaving it dry, a canal for small craft has been cut from the Humber to within a quarter of a mile of the town. Paul is a village two miles and a half from Hedon, and on the bank of the Humber; it has considerable building establishments, and seventy-four gun ships have been built here.

Kingston upon Hull, generally simply called Hull, has the privileges of a county, and is one of the most populous and commercial towns of England, containing 42,000 stationary inhabitants. Here are two wet docks, one covering ten acres of ground, and the other seven acres, with spacious quays for landing cargoes, besides several dry docks and building places. The *sea* trade of Hull may

Yorkshire. may be estimated by the amount of customs collected at different periods.

1700	£26,287
1778	78,229
1785	91,366
1792	199,988
1806	350,000
1807	300,000
1810	290,000

It is however to be observed, that considerable allowance must be made for the increased war duties of late years, which will much diminish the *apparent* increase of trade. The reduction of the customs in the last years proceeded from the Baltic being closed, a considerable branch of the Hull trade being to that sea. Hull has also a great trade with the inland counties by canals.* The Greenland fishery employs thirty to forty ships a year, by which are imported from four to 5,000 tons of whale and seal oil, besides seal skins, and sea unicorn's teeth.

Hull has a corporation styled the Trinity House, authorized to make bye-laws for the government of the seamen of the port, and to examine and licence pilots. Every seaman sailing out of this port pays 6*d.* per month to this corporation, and from this fund many disabled seamen and their families are supported.

North

* The total value of the objects of commerce brought into and carried out of the Humber is estimated at fifteen millions sterling.

North Ferraby, opposite South Ferraby, in Lincoln; this is a pleasant village near the Humber. Yorkshire

On the east coast of Holderness, north of the Spurnhead are Kilnsea; Hornsea, half a mile from the shore, has 700 inhabitants; close to it on the west is Hornsea Meer, with one exception the only fresh water lake in Yorkshire; it is two miles long and three quarters of a mile broad. Skipsea is also a village half a mile from the sea.

Bridlington Quay is a small genteel sea bathing town, on a fine bay, sheltered by Flamborough Head on the north, while the Smithie Bank breaks the fury of the sea on the east; the north end of this bank approaches to within a mile of Flamborough Head, and the depths over it are twelve to twenty feet. Bridlington Quay is a haven formed by two piers, and is scoured out by a considerable stream of water that falls into it; it dries at low water, but at high water springs the depth is fifteen to eighteen feet; it is defended by two batteries, whose fires cross and enfilade it. This place is one of the great rendezvous of the colliers in foul winds or bad weather. Bridlington is a considerable market town a mile inland from the quay.

Flamborough Head is a vast promontory forming a triangle, the base of which is crossed by an ancient ditch of great breadth and depth, apparently intended to insulate the promontory, and which tradition ascribes to the Danes. The promontory towards the sea presents cliffs 100 to 150 yards

Yorkshire. yards high, composed of mouldering lime stone as white as milk, and the bottom worn into vast caverns, one of which is named the Dove Cot, from the wild pigeons that breed in it: another, called the Kirk Hole, is entered on the north side of the promontory, and is said to penetrate nearly through it; Robin Lyth's Hole, a third cavern, has a perpendicular opening inland. Many vast masses of separated rock lie round the promontory, and, as well as the cliffs, are resorted to by innumerable sea birds to breed. Near the extremity of the promontory are two light-houses. Flamborough is a large fishing village in a hollow on the south side of the promontory, a mile and a half west of the new light-house; it has 700 inhabitants.

Filey, a fishing village and sea-bathing place of 500 inhabitants on a spacious bay, which is sheltered on the north by a rocky ledge, extending one mile and a half from the shore, and quite dry at low water, on which the sea breaks with great fury in bad weather. On the beach of the bay are picked up cornelians, and sometimes morsels of amber.

Scarborough, a handsome borough town, is situated in the recess of a beautiful bay, and on a rocky cliff rising perpendicularly from the water. Its haven, which is the only one fit for large ships between the Humber and the Tyne, is formed by two piers. The old one 1,200 feet long; and the new one, which is constructed of vast blocks of stone weighing thirty tons, is sixty feet broad at the

the base, and sixty-three feet at the curvature, where the force of the sea is greatest; the breadth at top is forty-two feet, and the height forty feet. As there is no back water to scour it out, the sand from the sea that subsides in it in summer would soon fill it up, was the effect not counteracted by the agitation of the water in winter, which again disturbing this sand from the bottom, it mixes with the water, and is carried out by the tide. The depth at the pier head is twenty to twenty-four feet at high water springs, and at low water but three to four feet. The repairs of the piers are provided for by a duty on coals exported from Newcastle and Sunderland. There is a hospital for seamen's widows, supported by stoppages from the seamen's pay. Scarborough is much frequented for sea-bathing and for its medicinal springs, which are chalybeate and saline. Scarborough Castle is on a rocky cliff of 350 feet elevation, washed on three sides by the sea, presenting to the north, east, and south, an inaccessible face of rock. Within the walls is a grass plain of nineteen acres, with a well of pure water. This edifice was built in the reign of Stephen, and is now a vast ruin. Yorkshire.

Between Scarborough and Cleveland the coast is composed of cliffs, generally from sixty to eighty feet high, but between Scarborough and Whitby is Stoupbrow, a vast mass of rock of 893 feet elevation. The peaked mountain of Rosebury Topping near this coast, serves as a landmark to seamen, its height is 1,486 feet.

Robin Hood Bay is a fishing village six miles S.E. of

Yorkshire. of Whitby, and has its name from the tradition that the famous outlaw and his equally celebrated attendant, Little John, frequented this place. The village is built on the edge of a perpendicular cliff; the bay is shoal and the sands left dry at low water a great way from the shore. The road from Stoupbrow to Robin Hood is along these sands, and under over-hanging cliffs; and here it is necessary to be aware of the effects of the tides, which flow towards the shore with great rapidity covering the sands in a short space of time.

Whitby is situated on the Eske, which divides it into nearly equal parts connected by a draw-bridge, which admits vessels of 200 tons. The town is croudedly and irregularly built, the streets narrow, ill-paved and dirty, but many of the houses handsome. The climate, from the position of the mountains, is almost as cold and stormy as Orkney, and hence it is by no means a pleasant residence. The outer harbour is formed by no less than five piers, and, nevertheless, its water is considerably agitated in storms. The western pier of square stones is 520 yards long, and terminating in a circular head, on which is a battery. Above the bridge is an inner harbour perfectly smooth, and here are considerable ship-building establishments on both sides of the river. The depth in the outer harbour is at neap tides twelve feet, at common springs eighteen, and at equinoctial springs twenty-three to twenty-four.

In 1774, Whitby had 130 vessels of eighty tons and upwards. Its population is 7,500.

In

In 1771, 250 vessels, and in 1796, the tonnage of the port was 46,585, and seamen 2,452. It sends twelve to fourteen ships to the Greenland fishery. York.

In the neighbourhood of Whitby are vast alum works, and in the aluminous rocks skeletons of various animals have been found, particularly one of a crocodile. Great numbers of *cornua ammonis* are also found in these rocks.

Runswick is a fishing village situated on the side of a steep rugged rock, three miles west of which is Staithes, also a fishing village, in which Captain Cook, our great circumnavigator, was bound apprentice to a tradesman. The fishermen of this place are the most hardy and intrepid of the coast; in winter they go out to sea in small boats called *cobles*, which hold three men each, but in summer they use boats of ten to twenty tons with five men, in which they usually remain at sea from Monday morning to Saturday night, and on their return the fish is cut up and salted by the women. In the herring season this village sends fifteen fishing boats to Yarmouth.

Red Car is a fishing village and sea-bathing place, south of the mouth of the Tees.

The Tees separates the counties of York and Durham, it is one of the most romantic rivers of England, is navigable for sea vessels to Wassal three miles above Yarm, which last is a market town of 1,800 inhabitants. It exports corn, butter, hams, and bacon, to London. Above Stockton it receives the Ure and Derwent, the former

York. navigable to Rippon and the latter to Malton; below Stockton the river becomes very tortuous till it empties itself into a bay three miles wide.

Durham. Stockton on the Tees has 4,000 inhabitants and a considerable trade, having in 1795, forty-seven vessels of 5,733 tons; it builds ships of burden, and manufactures sail-cloth. In the Tees is also a profitable salmon fishery.

The coast of Durham is in general bound by rocky cliffs worn into caverns; the most conspicuous of which are those named the Black Holes, north of Hartlepool, which are supported by natural pillars, and resemble the aisles, &c. of ancient cathedrals. Between Sunderland and the Tyne, the rocks have been separated from the shore, and that named Marston is near fifty yards distant, though the chasm was formerly crossed by a plank. This rock is also perforated so that a sailing boat can pass through it. It is the resort of great flocks of sea-birds, whose dung collected every fifth or seventh year for manure, produces £100. Seaton is a pleasant fishing and bathing village. Hartlepool is a fishing town of 1,000 inhabitants on a promontory, sheltering a capacious bay on the south, but the harbour being unfit for vessels of any size, its trade is inconsiderable, and the chief business is the fishery. It is also visited by sea-bathers.

Hawthorn

Hawthorn is a village on a hill a mile from the sea, and Seaham a village on the shore. Durham.

SUNDERLAND, on the right bank of the Ware, is composed of two towns united by the increasing buildings, and a third on the opposite side of the river, the whole population amounting to 30,000. The haven is formed by a pier on the south side of the river's mouth, and another on the north: on the extremity of the latter is a light-house. The depth at high water is sixteen feet, and it is fit for vessels of 400 tons, which are loaded with coals by keels,—oval-shaped covered barges, with a large hatchway in the middle, and without sail or rudder; they are all of the same size and carry ten chaldrons or twenty-six tons and a half. The trade of Sunderland is very considerable, employing 520 sea vessels: its chief business is the export of coals, to the amount of 350,000 chaldrons, to London, France, Holland, and the Baltic. It besides exports lime, glass, grind-stones, and copperas.

The stupendous iron bridge over the Ware at Sunderland, is well worthy of notice.

The Tyne separates Durham and Northumberland; the tide ascends in it to Hedwin above Newburne, and the rise is eighteen feet at its mouth, and eleven feet and a half at Newcastle. It had formerly a great salmon fishery, but the locks that have been constructed in the river to improve its navigation, now prevent the fish from ascending, and consequently have nearly destroyed the fishery.

Durham. On the south bank of the Tyne is SOUTH SHIELDS, an ill-built town, but the second of the county, containing 17,000 inhabitants. Its trade, including North Shields, is very considerable in the export of glass and salt. Most of the colliers that load from Newcastle are built at and belong to Shields, and the seamen of this port are the most expert of the kingdom. Here was invented and first brought into use the "Life Boat," by which between 1789 and 1810, upwards of 200 persons were saved from vessels wrecked in the mouth of the Tyne.

Swalwell on the Derwent, a mile above its confluence with the Tyne, is a small town deserving notice for its iron works, the largest anchors and mooring chains, besides all kinds of iron utensils, being made here and sent to London.

Northumberland. NORTH SHIELDS, on the Northumberland bank of the Tyne, contains 8,000 inhabitants, nine miles above which is NEWCASTLE, a town and county of 30,000 inhabitants. It is the grand emporium of the coal trade, the greatest collieries being near the banks of the Tyne, from five to eighteen miles above Newcastle; vessels of 300 tons load at the quay of the town, which is 700 yards long. Besides coals it exports iron, lead, salt, bacon, butter, and salmon of the Tyne, tallow, grindstones, and paving-stones. It has large manufactures of glass.

The corporation of the Trinity House of Newcastle

castle has the conservation of the river Tyne, to high water mark on both sides of the river, from its mouth to Hedwin Stream above Newburne. Northumberland.

The village of Tynemouth, near the north point of the river's mouth, is a fashionable sea-bathing place. Near it is Clifford Fort commanding the entrance of the river, and two light-houses under the Trinity House of Newcastle.

Hartley is a fishing village, before which is Bate Island forming a small haven for the fishing boats. Seaton Sluice is a little haven capable of receiving twelve or fourteen vessels of 200 tons: it is entered by an artificial cut through a free stone rock of 900 feet long, thirty broad, and fifty-two deep. Blyth is a convenient haven for small craft, but as well as Hartley and Seaton, dries at low water.

Coquet Island lies before a little river of the same name, on which is the village of Felton; and to it succeeds Alnemouth, a village on another small river where small craft load corn. The ruins of Dunstanborough Castle are next passed, and then Bamborough Castle, built on a basaltic rock 150 feet above the sea, and inaccessible except on the S.E. where it is defended by a deep dry ditch. Tradition ascribes its foundation to Ida, first Saxon king of the Northumbrians in 1548. In 1715, it came into the possession of Lord Crewe, Bishop of Durham, who bequeathed it with some other property to trustees, for the purpose of assisting ships in distress and shipwrecked mariners. In pursuance of this bequest, a constant patrole is

Northumberland.

kept on the shore in stormy nights, for the distance of eight miles (the extent of the manor) to give notice to the castle of ships in distress or on shore: In the castle are kept cables, cordage, blocks, screws, anchors, &c. for saving the cargoes, or getting the ships off, as well as apartments ready furnished for the crews; here is also a life boat.

The Farn or Fern Islands are two clusters of rocky islets, opposite to Bamborough Castle. The number above water is seventeen; they all afford some grass to pasture a few sheep, sea-weed for burning into kelp, sea-birds feathers, and seals, which are taken for their oil and skins; they are rented for £16. The nearest to the main is called House Island, and was the retreat of St. Cuthbert, during the last two years of his life. On his cell a Benedictine monastery was founded the ruins of which are still seen. At the north end is a great chasm from the top to the base of the rock, called the Churn, through which the sea-water is forced up in storms with a horrible noise to the height of sixty feet. There is a light-house on this island and a well of fine water; within Fern Island is a creek named Kettle with ten feet depth.

Holy Island or Lindisfarne is two miles from the main land, but at low water dry quicksands unite it to the main; it contains about 1,000 acres of land, half of which is sand-banks, but the rest is a good soil and affords a rent of £1,000. On the N.E. a spit of land runs out a mile and is the repeating point of the tides: this spit abounds with rabbits.

On

On the west side of the island is a fishing village of 400 persons, with a small haven. On the north end of the island is a light-house, and the ruins of the castle and cathedral are still seen, this having been the residence of a bishop whose see was transferred to Durham. Northumberland.

The Tweed separates England and Scotland.

On its southern bank is Tweed Mouth, a pleasant village; opposite to which is Berwick, a fortified town, long a subject of dispute between Scotland and England, until it was at last declared a free neutral town with a territory of 3,000 acres of land round it, and it still retains some of its ancient privileges. It has 7,000 inhabitants, and is a very commercial place, employing 4,000 tons of shipping in the export of wool, corn (50,000 quarters) peas, beans, &c. Its chief prosperity is however derived from the salmon fishery in the Tweed, which rents for £16,000.* The harbour is difficult from sunken rocks, and is formed by a handsome pier recently constructed. Vessels of thirty tons go up to New Waterford six miles above Berwick. There are barracks for 600 men, and the town has a military governor, whose salary is £586. Passage vessels with good accommodations (Berwick smacks) sail every week to London.

EAST COAST OF SCOTLAND.

From the entrance of the Tweed to the Frith of Forth, the coast is precipitous and rocky; the shore Berwickshire.

* See home fisheries.

Berwickshire. shore is covered with sea-weed, chiefly fucus pal-matus, which is used as a manure and burnt into kelp. . . . .

The cliffs are the resort of a prodigious number of sea birds, chiefly scouts and kittywakes (*larus risus*) which arrive in the spring and after having reared their young depart in the autumn; they are taken for food by the poor class. The tides on this coast rise twenty feet.

The only harbour between Berwick and the Forth is Eyemouth, a tide haven formed by two piers, with twenty feet in the springs and sixteen in common tides. The town has 900 inhabitants, and besides a considerable share in the fishery, exports 12,000 quarters of grain chiefly to Leith.

Between Eyemouth and St. Abb's Head is a fine bay with good anchorage. St. Abb's is a noted promontory with the ruins of a chapel; it is said to have its name from a certain Lady Ebba, Abbess of Coldingham, who together with her nuns on an invasion of the Danes, cut off their noses to prevent their violation by the barbarians. Coldingham Loch is a fresh water lake, one mile west of the head, and a mile in circuit: though it receives no visible stream it always remains full.

Lumsden is a fishing village north of the head.

East Lothian, or Haddington-shire. Dunbar, on an eminence, is a genteel and healthy town with a castle on a ledge of rocks running into the sea, and memorable as the scene of the simulated outrage on Mary Queen of Scots by Bothwell. It has a small pier haven defended by a battery of

twelve

twelve gins; its chief business is the fishery and the export of corn. Its population is 4,000. Port Seton

The Tyne River, the only one of any consideration in the county, empties itself below the village of Linton; though in summer it is a torpid stream, the melting of the snows or rains causes it at times to overflow. It has salmon and trout.

Tantallon Castle, two miles east of North Berwick, is a ruin on a rock overhanging the sea which washes it on three sides.

North Berwick is a small town of 700 inhabitants; it has a pier haven and exports corn.

The Firth of Forth (*Bodotria*) is a great estuary, whose entrance between the coasts of Haddington and Fifeness in Fifeshire is seven miles broad. The breadth decreases regularly to Queensferry, where it is contracted by two promontories to two miles. Above which it again expands to a fine basin four miles broad, and continues this breadth for several leagues.

In the Frith are several islands and rocks worthy of notice. The Isle of Bass, near the south shore, is a rock of great elevation overhanging the sea; on the north side and on the brow of the precipice is an abandoned castle, at one period the state prison of Scotland. A cavern runs quite through the rock from N.W. to S.E. This rock is the resort of great number of Soland geese and kittywakes, whose young and feathers afford some revenue. The Isle of May, near the middle of the Frith, is three miles in circuit and has a lighthouse. Inch Gowry has the ruins of a castle; and

East Lothian

and the ruins of a fort are seen on Inch Keith, near the Fife shore of the Frith. A few sheep are pastured on this island; it abounds with rabbits, has three good wells and a light-house. The other islands have nothing deserving mention.

Both shores of the Frith of Forth are thickly dotted with towns and villages, from which a considerable fishery is carried on, and which export salt and coals. Those of the south shore are port Seaton, a dry tide haven with twelve feet depth in spring tides. Preston Pans, named from its salt pans, has also a tide haven for small craft, and employs ten boats in the oyster fishery. It is the grand rendezvous of Scotch pedlars, who meet here once a year to enact regulations for their community. Its population is 2,000.

Edinburghshire.

Musselburgh, at the mouth of the little river Esk, has its name from the muscle banks before it. Fine pearls are often found in these fish. The town has 4,000 inhabitants, and a small haven.

Leith, the port of Edinburgh, is two miles distant from the city; but the increase of houses has now nearly united them. Leith is on both banks of the little river of the same name, whose mouth, inclosed by piers, forms a dry tide-haven, with seventeen feet high water springs. The largest ships lay in the road one mile and a half from the town perfectly secure. Leith has a large trade both foreign and coasting, particularly with

Leith.

London; it also sends ships to the Greenland fishery. It has 15,000 inhabitants.

Queensferry, the usual crossing place of the Frith of Forth, is a considerable village, with some trade, and ship-building yards. Burrowstoness, on the inner basin of the Frith, is a busy place, having a considerable herring fishery, a large coal trade, and a trade to the Baltic. Its haven has sixteen to eighteen feet spring tides, and is kept clean by a large basin with four sluices, which are shut when the basin is full at high water, and opened at low water, so that the rush of the streams carry out the mud. *Linlithgow.*

The places deserving notice on the North or Fife shore of the Frith, are Crail, on an elevation; it has some sloops, and about a dozen herring smacks. Kilrenny, East and West Anstruthers, are also fishing villages, with some sloop trade. Pittenween has a tide haven, with eleven to twelve feet springs. It exports grain, salt, and coals. Largo, on a considerable bay. Dysart, a town of one principal street, builds merchant ships for the Baltic trade; has large manufactories of salt. *Fife.*

Kirkaldy, on a fine cove, has 1,600 inhabitants, but is very ill built, its principal street being most disagreeably serpentine and narrow. It has some considerable manufactures, and employs 4,000 tons of shipping.

Fife. shipping. Kinghorn, opposite Leith, and five miles from it, is on a cliff overhanging the sea; its port, named Pettycur, is a fine basin at some distance to the west, and is the usual crossing place to Leith.

Burnt Island is a village on a peninsula, forming an excellent haven of easy access, adapted for repairing or laying up ships; it has some trade and ship building. Stanlyburn has a pier haven. Inverkeithing is on the rising ground of a bay affording good anchorage; it is one of the quarantine harbours for Scotland; it exports coals and salt; as do Terry Burn and St. David's villages.

St. Andrew's Bay is between Fifeness on the south, and Redhead on the north, seven leagues distant. Nearly midway is the dangerous Cape or Bell Rock, which nearly dries at low water, and on which a light-house has been recently built.

The city of St. Andrew's is on the south side of the bay on a rocky point, and has a haven formed by a pier, built on a natural ledge of free stone running into the sea; the depth is seven to ten feet high water neaps, and fifteen to sixteen in the springs. The population is 6,000.

East and West Havens are fishing villages or creeks on the south shore of St. Andrew's Bay.

The Tay, which carries a greater quantity of water to the sea than any other river of Britain, issues from the loch of the same name, and empties itself by an estuary named the Frith of Tay, filled with shifting banks. Vessels of considerable burden ascend the river to Perth, the chief town of

of Perthshire, and exports its corn, linen, linseed, oil, and salmon, the produce of the Tay fishery, which rents for £3,000. This river had formerly a muscle pearl fishery that some years produced £10,000, but it has been entirely exhausted. Perth has 15,000 inhabitants.

Dundee, on the north or Angus shore of the Tay, twelve miles from its mouth, where it is two miles broad, is a flourishing town of 26,000 inhabitants. Its haven, formed by a pier, dries at low water, has nine or ten feet at high water neaps, and fourteen at springs, receiving vessels of 200 tons. Its trade is very considerable with the Baltic and London; its exports are sailcloth, leather, cordage, thread, buckram, corn, salmon, and herrings; and its imports of various objects are estimated at 80,000 tons. It also sends vessels to the Greenland fishery. Passage vessels sail weekly to London. On Barrowness, the north point of the Frith of Tay, are two lights. Angus.

Aberbrothic or Arbroath, at the mouth of the Brothick, has a fine tide haven for vessels of 200 tons, defended by a battery of six twelve-pounders. It exports the linen and sailcloth of its manufactories. Here are the ruins of a celebrated Benedictine monastery founded in 1178. Population 5,000.

From the mouth of the Tay to beyond Arbroath, the coast is sandy and lined with rocks. Here it becomes bold and precipitous, with large caverns worn

Angus. worn in the cliff. Redhead terminates this tract, rising in red cliffs 200 feet high, and bounding Lunan Bay on the south, the shores of which are sandy, with sunken rocks as far as the North Esk river. In this bay is good anchorage in southerly winds. On Redhead are the ruins of a strong castle said to have been built in the twelfth or thirteenth century.

Montrose, the chief town of the county, is a neat and genteel place half a mile from the mouth of the South Esk, which at the town forms a basin 250 yards broad, accessible to vessels of 400 tons. The town is built on a point of land surrounded on three sides by water. It contains 6 or 7,000 inhabitants, and exports chiefly salmon of the river and lobsters (60 to 70,000 a year) to London. It has also a considerable coasting trade, and some to the Baltic; and builds vessels.

Kincardine. Fiscall is a village at the mouth of the North Esk, which separates Angus and Kincardine shires, to which succeeds Johnshaven. Gourdon, a fishing village with a haven, properly the port of Inverberie, two miles further north at the mouth of the Bervie, which receives only fishing boats. Eight or ten sloops belong to this port.

Dunnottar Castle is on a high perpendicular cliff, almost surrounded by the sea, and towards the land defended by a deep ravine.

Stonehaven, a fishing town of two streets, on the

the Cowie, with a good haven formed on the S.E. by a projecting rock, and on the N.E. by a pier; it dries at low water, but has nine or ten feet high water neaps, and sixteen to seventeen in the springs. There is a good salmon fishery here. Kincardine.

Girdleness, a promontory eighty feet high, is the termination of a ridge of the Grampian hills. On the shores near it beautiful Scotch pebbles and jasper are found, and most of the hills are composed of *breccia* or pudding stone.

The coast of Aberdeen is in general bold and rocky, the cliffs presenting many caverns of unknown extent. Aberdeen Bay is limited by Girdleness on the south; it affords good anchorage in off shore winds. The Dee is a rapid and considerable stream, descending from the Grampians: its mouth inclosed by two piers,* forms the haven of Aberdeen, which is crossed by a bar with but two feet at low water, and twelve and a half feet at high. Vessels that can go over the bar lay at a handsome quay. ABERDEEN is a handsome city of 36,000 inhabitants, with a large foreign and coasting trade, exporting linen, salt provisions, thread stockings, and paving stones to London. It also exports to London the produce of the salmon Aberdeenshire.

* The North Pier is 1,200 feet long, and terminates in a round head sixty feet diameter at the base, and thirty-eight feet high; the whole built of huge blocks of granite. The entrance is defended by two batteries of twelve-pounders.

salmon fisheries on the Dee and Don, which produce from £3,000 to £6,000 a year. Aberdeen is largely engaged in the herring fishery, and sends ships to the Greenland fishery.

Old Aberdeen, on the Don, a mile north of the new town, is almost joined to it by a long village. Small vessels enter the river's mouth.

Newburgh, on a rock forming a good haven, with twelve feet depth high water common tides; close to it on the north is the river Ythan, in which the tide flows up to the pleasant village of Ellon. This river abounds with pearl muscles.

Slane's Castle, the seat of the Earl of Errol, is built on a cliff overhanging the sea; near it is a cavern named the Dropping Cave, remarkable for the quick petrifaction of the water that drops from its roof. The ward of Cruden is a fishing village south of Buchanness, near which is a singular natural curiosity called the Buller of Buchan; it is a circular basin surrounded by a ring of frightful rocks, in which on the side next the sea the waves have worn an arched opening, through which boats can pass into the basin, which latter has a depth of thirty fathoms; the summit of the ring of rocks is covered with earth and grass, forming a narrow walk all round.

Peterhead, a league north of Buchanness, has a tide haven formed by a pier, and sheltered by the little island Chalk Inch. It has some trade to the Baltic, is engaged in the cod and herring fisheries, and is visited for a mineral spring.

Kinnaird Head is the south point of the great gulf

gulf formed on the N.E. coast of Scotland, terminating in the Murray Frith. A league from the head is Frazerborough, to which succeed Rosehearty and Aberdour, fishing villages with little tide havens.

Banff. The coast of Banff county is in general very bold, presenting in many parts a front of perpendicular rock 200 to 300 feet high. In the parish of Guarie is a steep rock, frequented by innumerable kittywakes, who arrive in spring to breed and depart in the autumn. On the same coast is a natural abyss called *Hell's chimney*, communicating at its base with the sea, whose waves rush into and force a column of water through it, which breaks into vapour. A second cave is pierced through a neck of land; and from an entrance through which a man can only creep opens into a cavern 150 feet long, thirty broad, and twenty high, supported by vast natural columns of rock. On this coast are many small fishing places, beginning with Gardenstone, to which succeeds Macduff, a little town recently founded by the Earl of Fife on the right bank of the Doveran, which has the best haven of the Murray gulf. On the opposite bank of the river is Banff on the declivity of a hill, a genteel town, but with a bad haven from shifting sand-banks. The Doveran is useless to navigation, but has a salmon fishery that rents for £1,000. The other exports are ale, corn, thread, cotton and yarn stockings, by coasters.

Banff. Portsoy is a populous town on a point of land, which forms a safe harbour for vessels of considerable size; besides the produce of its fishery it exports thread and fine linen to London.

The other places accessible to navigation are Cullen, which has only an open and dangerous road, Port Nockie, and Buckie, which receive small craft.

Murray. The River Spey separates Banff and Murray shires; its course is about ninety miles to the Murray Frith, where it empties itself at Gairmouth, forming a good haven for small vessels. Gairmouth is a neat town of 700 inhabitants, and has a good deal of business, chiefly from the great quantity of timber floated down the Spey from the forest of Strathspey. A number of vessels of 500 tons are built here of this timber; and it has a good salmon fishery, several sloops being employed in conveying the fish to London.

On the coast of Murray is a considerable tract of sand downs, called the Maviston Sand-hills, which, according to tradition, were formed by the same inundation of the sea that produced the Goodwin Sands. These downs are constantly increasing towards the N.E., and within the last century have entirely covered the fertile barony of Culbin; and the same cause has also necessitated the removal of the town of Findhorn, whose ancient site is now obliterated by sand hills.

On this coast are some fresh water lakes, which were

were apparently bays of the sea, particularly Loch Spynie, three miles long and one broad, now separated from the sea by a fertile tract of land called Ross Island; many beds of oyster shells are found on the banks of the lake considerably below the level of the land. The lake abounds in perch and pike, and is frequented by swans. The Loch of Cots is described as a bay in the thirteenth century. Murray.

The Frith of Murray is entered between Burgh Head in Murray, and Tarbet Ness in Ross, distant from each other five leagues; it contracts gradually to a strait between Fort George and Fortrose, formed by two promontories, within which it again widens to a lake nine miles long and three broad; at the upper end of which two projecting points at Inverness contract it to a second strait, beyond which it again expands, and forms a second lake nearly as large as the first, at the head of which the River Beauley empties itself. The River Ness, which issues from Loch Ness, falls into the Frith at Inverness.

Lossie Mouth, at the entrance of the little river Lossie, is the port of Elgin, and receives vessels of eighty tons, by which it exports corn to Leith, &c.

Findhorn is a small town at the mouth of a river, which is navigable to within two miles of Forres, five miles above Findhorn. In the river is a good salmon fishery. In the bay of Findhorn is 1,000 acres of soil covered by the tide of flood, which it is in contemplation to embank.

Nairne. NAIRNE, at the mouth of a river, is the only port of the little county of Nairne; it is neatly built, contains 2,000 inhabitants, and exports the produce of its salmon fishery. Its harbour is convenient, and capable of great improvement.

Inverness. Fort George on the Inverness side of the strait that communicates between the two inner lakes of the Murray Frith, is a regular fortification, on a promontory surrounded on three sides by the sea, and covering ten acres of ground, mounting 100 cannon, chiefly forty-two pounders, and having barracks for 6,000 men.

INVERNESS is a considerable town at the mouth of Ness River, accessible to vessels of 500 tons at all times; it exports salmon, herrings, cordage, canvas, and sacken, chiefly to London. Population 8,700.

The Friths of Murray and Cromarty are separated by a peninsula named Black Isle (*Elan-du*), through which runs a ridge of hills covered with heath, declining to both gulfs. The peninsula is twenty miles long and four broad, the south shore forming the county of Ross, and the north that of Cromarty. Fortrose and Beauley are in Ross-shire,

shire, on the Murray Frith, the former opposite to Fort George, has 1,300 inhabitants. Ross.

Cromarty Frith is a deep inlet, called for excellence "the Harbour of Safety;" it is entered between two high heads called the *Sutors* of Cromarty, a mile and a half distant from each other, within which it expands to three miles for a length of sixteen, and has good anchorage for the largest ships in every part, so that it is often run into for shelter in easterly winds. The south Sutor is a bold promontory topped with pines, and commanding a magnificent view over the sea and over Ross shire. CROMARTY, on the south shore of the strait, has 2,200 inhabitants and a commodious quay, at which vessels of 400 tons lay; it has little other business than the fishery. Cromarty.

The Frith of Dornoch, or of Tain, is separated from that of Cromarty by a peninsula of the county of Ross, of which Tarbet Ness is the extreme point. The entrance of the Frith is five leagues wide, decreasing gradually to Mickle Ferry where it is two miles; within this it again expands, and forms a good harbour for vessels of considerable burden, though it is crossed by a bar with but four feet at low water. Ross.

The south shore of the outer gulf is lined by a bank called the *Gizzing Briggs*, from the noise

Ross. the sea makes on it; in it are several breaks, admitting small craft within it: but all this gulf requires a pilot.

Tain, on the south shore of the frith, has some coasting trade; it is an old irregular built town, with a few new houses, and 2,300 inhabitants.

Sutherland. On the north, or Sutherland shore of the Frith of Tain, is DORNOCH, a town of 2,500 inhabitants, the principal one of Sutherland, and the only one deserving mention. North of the entrance of Dornoch Frith are Fleet Lake, Dunrobbin Castle, the seat of the Earls of Sutherland, in good repair, and Brora Haven, at the mouth of the little river of that name.

Caithness. The county of Caithness occupies the N.E. extremity of Great Britain; its east coast is bold and rocky, forming many little coves into which the fishing boats run, and to which the fishermen descend from the perpendicular cliffs by dangerous flights of steps cut in the rock. To secure their boats from the sea they hoist them to the rocks, into which rings are fixed for the purpose above the reach of the waves. At one of these coves, named Faligol, a fine cascade falls over the cliffs into the sea.

At the bases of the rocks are many sea-worn caverns, accessible only in boats, and frequented by

by seals, which are killed for their oil and skins. Caithness
Many rocky pyramids also start up from the sea. The sea air prevents the growth of any kind of trees on this coast. It abounds in sea weed, which is burnt into kelp.

The principal places in Caithness, are Dunbeath Castle and WICK, on the east coast; the latter is the county town with 4,000 inhabitants: its haven is natural and very indifferent. Staxigo, one mile north of Wick, has a little dry tide haven. Freswick Castle, on Sinclair Bay, north of Noss Head, is strongly situated on a promontory.

Dungis, or Duncan's Bay Head, *Berubium* of Ptolemy, is the N.E. point of Scotland; it is a rocky precipitous promontory, eaten into caverns by the waves. The Stalks of Dungis Bay are two isolated pyramids of freestone, the resort of sea birds, and the breeding place of eagles.

The north coast of Caithness, west of Dungis Bay Head, forms a fine bay, with a white sandy and shelly beach, near which was the celebrated John O'Groat's house, noted as well for the tradition respecting its erection, as for being the northernmost habitation in Britain.

Thurso is on a spacious bay, limited by Dunnet Head (*Occas Promont*) the north point of England, on the east, and by Welbrow Head on the west, both of which shelter it from the fury of the waves and the stream of the tides. Dunnet Head is a broken rocky promontory, from 100 to 400 feet high, joined to the main by an

Caithness. isthmus, one mile and a half broad. It is one of the few places of Britain frequented by puffins.

Thurso, on the river of the same name, has 4,000 inhabitants: the river is navigable two miles for vessels of sixty tons, and its harbour is about to be improved by Act of Parliament.

Thurso has eight vessels employed in coasting, and several fishing boats. It exports corn and meal to the amount of £12,000, and fish to a greater amount, particularly salmon, which is so abundant, that 2,500 were caught in one draft, two miles above the town, in 1743. The annual export is estimated at 700 kits of boiled salmon, 250 barrels of pickled, besides 7,000 barrels of salted and smoaked herrings.

Sutherland. The north coast of Sutherland is indented by numerous bays, forming good roads for shipping. The first is Port Skerry, at the mouth of the Hollodale River, which separates this county from Caithness. Five miles N.W. of it is Strathey Head, a long promontory, sheltering a cove, called Port Strathey, at the mouth of a river of the same name. West of Strathey Head, the River Naver, the most considerable of the county, falls into a fine bay, after a course of twenty-eight miles. Torrysdale River empties itself at a village of the same name, and has a good salmon fishery. Tongue Bay, farther west, is an inlet of the sea five miles deep, skirted with farm houses and corn fields. Farther west the coast is high and rocky, with many little coves, on one of which,

which, named Voisgag, a quarry of grey slate is worked. There are here also many sea-worn caverns, supported by pillars, of which that named the Great Cave of Fraisgall runs in more than half a mile, and is covered with stalactites of different resplendant colours. There are some islands here, of which the most worthy of notice are, Saints, Seal, and Rabbit Islands, in the entrance of Tongue: the former presents a singular appearance, produced by the spouting of the waves of the sea through a natural tunnel. *Ealan na Roan*, or Seal Island, is two miles in circuit and inhabited by four families. Rabbit Island has its name from abounding in rabbits. Sutherland.

West of the Bay of Tongue is Loch Eribol, a spacious inlet, on the west shore of which is Port Ruspin, a small dry haven. Next in succession is Far-out Head, the point of a peninsula between Loch Eribol and the Bay of Durness.

Cape Wrath, or Barvehead (*Ebudium*), the N.W. point of Britain, is a desolate rocky head, which apparently has its name from the furious beating of the waves and the rushing of the tide, which are increased by a rocky ledge running off from the cape five or six miles, with sixteen to twenty-four fathoms on it. Nine miles due north of the cape is a dangerous sunken rock covered at high water. The Cave of Sino, near the cape, is seventy or eighty yards high, and extends backwards in a lake of which the extent is unknown.

WEST COAST OF ENGLAND.

The coasts of Cornwall and Devon, from the Land's End to the Bristol Channel, have no port for a vessel above 400 tons, but there are many good sandy bays to anchor in, in east and south winds.

Cornwall. Pendean and Trean are fishing villages, between the Land's End and St. Ives. This latter is a corporate and borough town on a fine bay, with a pier haven for small craft, but which is constantly encumbered by sands, driven in by N.W. winds. Its chief exports are slates and pilchards. Its population is 2,700.

The bay of St. Ives, with Mount's Bay, on the south coast, peninsulates the extremity of Cornwall, the distance from the high water mark in Heyl River on the former, to Marazion in Mount's Bay, being but three miles. The mouth of the Heyl forms a tide haven for vessels of 100 tons, and small craft ascend to the village of Lelont; from this haven are exported considerable quantities of copper ore and limestone.

From St. Ives to Padstow, with a few interruptions, the shore is formed by sand banks, elevated sixty yards above the sea, and covered with a thin turf that pastures sheep. That this was formerly a tract of cultivated land, is evident from the vegetable mould under the superficial covering of sea sand and shells, and in which have been found the remains of fences and houses. Tradition fixes the period of its being overwhelmed with sand in the sixteenth century.

Portreath,

Portreath, or Bassets Cove, and Towan Cove, are fishing villages. From the pier haven of Portreath is exported copper ore to Swansea, Neath, &c.; a small battery defends the port. St. Agnes, also a village in the neighbourhood of tin mines, had formerly a haven, but its pier has been washed away, and it is now filled up with sand. The shore is here composed of immense rocks, one of which, named St. Agnes beacon, is a hill 500 feet high. Cornwall.

Padstow, on the Camel or Alan, is chiefly employed in the pilchard fishery, and in exporting slates to London and Bristol. The river is dangerous of access in bad weather, and can only receive vessels of 200 tons with the tide; 1,400 inhabitants.

Port Isaac, five miles from Padstow, affords refuge to vessels of 200 tons at high water. In case of urgent distress they may run on shore on the sands and save their crews. Portquean is a small fishing village, five miles south of Tintagal Head, a rocky peninsular cape, perpendicular towards the sea, and barely accessible on the land side. On its summit are seen some ruins, which the legendary tradition says, are the remains of a castle in which the British King Arthur was born. St. Gennis and Stratton are little dry tide havens.

Barnstaple Bay is five leagues wide, between Hartland Point on the south and Bag Point on the north. South of Hartland Point is the small market Devon.

market town of Hartland, with a pier. Blagdon pier haven is north of the point; to which succeeds APPLEDORE, a village at the mouth of the Towridge, and on the side of a hill.

Two miles above Appledore is BIDDEFORD, a corporate town, with considerable coasting trade, exporting coals and culm, and oak bark to Ireland and Scotland. It has also a good herring fishery, and sends ships to Newfoundland. 100 vessels, of twenty to 250 tons, belong to it; and ships of 500 tons can ascend with the tide (the rise being eighteen feet) to the town, which is lined by a convenient quay. Biddeford is in general meanly built, of brick, timber, and clay, and the houses mostly thatched; its population is 3,000.

BARNSTAPLE, on the Taw, is a neat, genteel, corporate town, with a considerable trade, vessels of 200 tons ascending to it, the rise of tide on the bar being twenty-eight feet high water springs and seventeen feet neaps. Population 3,500.

Clevely and Hole are fishing villages, with piers for the boats.

The Bristol Channel, which with more propriety may be denominated a gulf, penetrates between the coasts of England and Wales. Its entrance between Mort Point and Oxwich is seven leagues, and its length to King Road twenty-one.

Lundy Island, at the entrance of the Bristol Channel, and in the county of Devon, is five miles long and two broad, and so encircled by a rocky shore as to be accessible only at one small spot. The east side is clean, with good anchorage,

age, but the west is foul. It is inhabited by one family, is well supplied with water from springs, and abounds with rabbits. Rat Islet, on the south, has its name from the great number of rats that burrow on it.

Ilfracombe, a neat built town of one principal street a mile long, has a good harbour, partly formed by a pier and partly by a natural cove surrounded by craggy heights cloathed with wood; vessels of 230 tons lay land locked, and it is much frequented as a place of shelter by vessels that cannot get into Barnstaple. It has a light-house, a large share in the herring fishery, and is a sea bathing place, having a fine pebbly beach. 1,805 inhabitants.

Comb Martin, on a cove, is a little decayed town beautifully situated. Linton and Linmouth, on the little river Lin, are small straggling villages celebrated for their oysters.

The county of Somerset presents a succession of bays and rocky promontories, generally lined by sand banks, which by their increase now serve to break the force of the waves, which anciently washed over them, and occasionally inundated the shores. The cliffs of the parish of Old Cleve, west of Dunster, abound with alabaster.

Porlock is a small, straggling, and ill-built town, on a bay three miles long, bounded on the east by ridges of lofty rocks partly insulated at high water, caverned at their bases, and with veins

Somerset. veins of metal. Three or four sloops belonging to Porlock are employed in bringing coals and lime from Wales. 600 inhabitants.

Minehead has a commodious tide haven, but its trade is greatly declined, and its herring fishery has almost entirely ceased. The town is composed of three parts at some distance from each other, at the foot and on the declivity of a rocky hill. 1,000 inhabitants.

Dunster, a market town of two well built streets, is a mile from the shore, and surrounded by hills except towards the sea. It has one of the largest gothic churches in England, and a castle surrounded by a noble park. 800 inhabitants.

Watchet, a town of 140 houses, in a fine valley, has a pier haven for small craft, which export coal, kelp, alabaster, and limestone.

The River Parret empties itself into Bridgewater Bay, and is remarkable for a bore, the elevation of which is ten to twelve feet. The rise of tide in the springs is six fathoms. This river is navigable to Taunton and the Brent, which joins it at its mouth to Glastonbury.

Bridgewater, on the Parret, three leagues from its mouth, is a corporate and borough town of 3,000 inhabitants. It has a commodious quay to which vessels of 100 tons ascend.

Bristol, considered the third city of England in commerce, is situated on several hills at the confluence of the Frome with the Avon, and eight miles above the mouth of the latter at Kingroad. Its population is estimated at 100,000 souls. Vessels of 600 tons ascend to it with the tide.

Bristol

Bristol is one of the most ancient trading cities of England, being described by William of Malmsbury in 1139, as a place much addicted to trade, and full of ships from Ireland, Norway, and every part of Europe; and in 1347 it may be supposed to have been little inferior to London, the number of ships furnished by the latter being twenty-five and 662 men, and by the former twenty-two ships and 608 men. The voyages of Cabot, of Sir Humphrey Gilbert, and many others, also originated at Bristol.

The modern trade of this city is especially with the West Indies and America, the Baltic, Spain and Portugal, and with the West Coast of Africa, and Ireland. The results of the trade for the year 1787 were as follows.

	British.		Foreign.	
	Ships.	*Tons.*	*Ships.*	*Tons.*
Entered inwards	416	48,125	69	11,112
Cleared outwards	382	46,729	66	10,445

In the same year the vessels belonging to the port were,

Foreign Traders.			Coasters.			Fishing Vessels.		
Ships.	*Tons.*	*Men.*	*Vessels.*	*Tons.*	*Men.*	*No.*	*Tons.*	*Men.*
328	53,491	3,971	30	3,078	142	7	340	30

The customs collected at Bristol exceed £300,000.

The inconvenience of the vessels laying on the ground when the tide is out, first caused a wet basin to be constructed for forty ships; but a much grander plan has been recently completed, that of completely

Somerset. completely damming the Avon across, and thereby converting its bed into a vast basin two miles and a half long, and covering eighty acres of land, which is entered by gates, and in which 1,000 vessels may always lay afloat. A new channel has been cut for the river. An iron bridge of a single arch 200 feet high crosses the river, under which the largest ships pass.

Pill is a large village at the mouth of the Avon where vessels receive custom-house officers, and where the Irish passage vessels usually land and embark their passengers.

The Severn, the second river of England in magnitude and utility, rises in Plinlimmon-Hill, in Wales, runs past Shrewsbury, Bridgenorth, Worcester, Tewksbury, and Gloucester, and empties itself into the Bristol Channel by a large estuary, by the old writers called the Sea of Severn, at Kingroad. Its channel is rendered difficult by rocks, but loaded barges ascend it 160 miles. It is subject to a bore here called *hygre* or *eager*, three or four feet high. Its fish are salmon, lamprey, and chad.

In the entrance of the Severn are the Isles Flatholm and Steepholm; the former is four or five miles in circuit, with a tolerable soil, but uninhabited except, by the person that has charge of a lofty light-house on it.

Gloucester, on the Severn, thirty miles above Kingroad, is a well built city of 8,000 inhabitants. It is built on an elevation, and has a considerable trade,

trade, vessels of 200 tons ascending to it. (See canals.)

The River Wye, one of the most picturesque of England, and also the most tortuous, empties itself on the north shore of the Severn, separating Gloucester and Monmouth shires. Near its mouth is CHEPSTOW, a flourishing town of 2,000 inhabitants, with a considerable foreign and coasting trade, exporting timber, corn, oak bark, cider, coals, grind and millstones. It also builds small vessels. Monmouthshire.

Newport, on the Usk, two miles from its mouth, is a narrow straggling town of 1,100 inhabitants. It is thought to be built of the ruins of the ancient Caerleon. It has a large coasting trade, exporting coals, cast and bar iron, &c. In 1795, 295 vessels of 12,000 tons and 930 men entered, and 243 vessels of 11,000 tons and 1,000 men cleared out. The River Usk is a beautiful torrent stream, navigable to Tredennoc Bridge, and has a good salmon fishery.

SOUTH WALES.

The Rumney separates the counties of Monmouth and Glamorgan, emptying itself at the village of Rumney, east of Cardiff. The coasts Glamorgan.

Glamorgan. of Glamorgan are either sandy level beach or marle cliffs. CARDIFF, at the mouth of the Taff or Tave, has 1,900 inhabitants; it exports 30,000 boxes of tin plates to Bristol.

The Tave, at its mouth, expands into a large basin, called Pennarth Harbour, but which at low water is a sheet of mud, except a narrow channel into the river. Barry Island is separated from the main by a narrow strait, fordable at low water over a bed of pebbles. Newton is a neat village on a fine sandy beach, frequented for sea bathing. Near it is a well that ebbs and flows inversely with the sea.

SWANSEA Bay has been compared, by those who have seen both, to the Bay of Naples, for picturesque beauty. Aberavon, a small town with a tide haven, formed by the mouth of the Avon; and Neath, a town of 2,500 inhabitants, also on a river of its name, have some coasting trade, exporting copper from works in the neighbourhood. Neath has the ruins of an abbey and castle.

SWANSEA, on the Tawy, a corporate and borough town of 6,000 inhabitants, is tolerably well though irregularly built. Its chief trade is the export of coals; and packets sail regularly between it and Dublin, Waterford, Cork, and Ilfracomb. It builds ships, and has copper works. Near it is a mineral (vitriolic) spring, and it is visited for sea bathing. Its large ancient castle is now converted into a town-house, market, jail, poor-house, &c.

West

West of Swansea is the Mumble's Head, east of which are the vast ruins of Ostermouth Castle, a gothic construction on a cliff. Ostermouth is a fishing village; and on Mumble's Head is a light-house. Caswell Bay, west of the head, presents beautiful scenery, to which succeed Oxwich Bay, Port Inon, and Worms Head. Glamorgan.

CAERMARTHEN BAY, between the counties of Glamorgan and Pembroke, is limited on the east by Worms Head, and on the west by St. Gowan's Head; the former a high promontory with chalky spots. On the east shore of the bay is Llanelly, a small irregular town inhabited by miners and sailors. It has a good port for vessels of ten feet, formed by an inlet of the sea, called Burry River, and is the port of entry of Kidwelly and Caermarthen. Its exports are pit coal and tinned iron plates. Population 3,000. Caermarthen.

Kidwelly is a neat regular built town on the Gwandraeth, which forms a little haven, but nearly choaked with sand. It exports coal of the neighbouring collieries, which is brought to the town by a canal. 1,400 inhabitants.

CAERMARTHEN, on the Towy, seven miles from its mouth, is a genteel thriving town of between five and 6,000 inhabitants. The river is crossed by a bar, but vessels of 250 tons ascend to the bridge of the town. Its chief exports are tin plates and cast iron.

Lauharne is a village on a creek.

Pembroke. The coasts of Pembroke are in general hilly with steep cliffs, and indented by a number of bays. Tenby, the most eastern place, is situated on an irregular peninsula rising in rugged precipices, on the west side of Caermarthen Bay. It was reduced to a poor fishing town until some years ago, when the capricious resort of some sea bathers brought it into notice, and it is now a fashionable summer's residence. Its trade has been greatly increased in the export of coals and culm, which are shipped at Sandersfoot, three miles to the west. In 1803, 589 colliers of 45,000 tons cleared out. It has also large herring, trawl, and oyster fisheries, thirty to 40,000 of these latter being taken daily and sent to Bristol and Liverpool, as is also the produce of the trawl fishery, which occupies fifteen smacks of thirty tons each from April to October. The anchorage in the road is sheltered by the peninsula on the west, but is exposed to S.E. and E. The haven is formed by a pier, and it has a good quay. Population 844.

Close to the peninsula of Tenby, on the south, is St. Catherine's Island, a mass of rugged rocks, and three miles farther is Caldy Island, with a mansion of its proprietor. St. Margaret's Island is separated from Caldy on the west by a great chasm. Its only inhabitants are rabbits: on it are the ruins of a chapel.

Broad

Broad Haven, or Stackpole Creek, is a league east of St. Gowan's Head, and is a sea bathing place. Pembroke.

MILFORD HAVEN is the most capacious harbour of Great Britain, being ten miles long and one to two broad, and having five bays, ten creeks, and thirteen anchoring places for large ships. It is entered between Nangle Head on the east, and St. Ann's Point on the west, distant two miles. On the former is a hamlet, and the ruins of a castle and nunnery; and on the latter two lighthouses and a blockhouse. The tide rises in the harbour thirty-six feet in springs, and twenty-six in neaps. The natural defects of this haven are the dangerous rocks near the entrance, and the being obliged to wait for an easterly wind to get out. PEMBROKE, the chief town of the county, is on a creek of the south shore, contains 2,000 inhabitants, but is declining, it was anciently walled, has a castle, and custom-house for Milford Haven.

Huberstone, on the north shore, is a village, from which the packets usually take their departure for Waterford. MILFORD, also on the north shore, has been built since 1790. It is situated on a beautiful point of land, sloping gently to the water, which almost surrounds it. Its streets are regularly laid out, east and west, north and south. It has a king's dock-yard, and a seventy-four gun ship has been built here. It has also an astronomical observatory. Several vessels are employed from this port in the southern whale fishery, chiefly by a colony of quakers, emigrants from Nan-

Pembroke. tucket Island. Two batteries of seven guns each defend the port.

Haverford West is a borough town of 3,000 inhabitants, on the navigable river Cledday, which falls into the north side of Milford Haven.

Scookam, Scaumore, and Grassholm Islands lay off Milford Haven, and have many groups of rocks round them.

St. Bride's Bay is formed between two peninsulas at the west extremity of Pembrokeshire; it affords sheltered anchorage in all winds, but from west to S.W. According to tradition, this bay was anciently a level plain, inundated by the sea. St. Brides, on the south shore, and St. David's, on the north, are insignificant villages; the latter, once a flourishing city, has now but 1,800 inhabitants. It is two miles from the shore. It has the ruins of a vast castle.

Solva, or Solfach, also on the north shore of St. Bride's Bay, is a new and very agreeable town built since 1800, on a fine trout stream. Its haven is good, but in the entrance is a pyramidical rock, leaving a channel on each side. Twenty to thirty coasters of twenty to 250 tons belong to it, and export corn to Bristol. Port Clash, a rivulet three miles west of Solva, receives craft of seven feet at high water.

Ramsey Island, one mile from St. David's Head, the west point of Pembrokeshire, is three miles long and one broad. It rises at each extremity to a high hill, but has a considerable quantity of arable and pasture land, and is well watered, five

of

of its streams turning mills. It is the resort of sea birds and of the peregrine falcon; and it is said, the rats have almost overpowered the rabbits that formerly abounded on it. It has but a single farm-house, celebrated for its cheese. Off the east side are two rocky islets separated from it by a great chasm.

The Bishop and Clerks are seven dangerous rocks outside of Ramsey Island; they are visited to collect sea birds' eggs which are sent to Bristol to fine wine. The Smalls, seven leagues from the coast of Pembroke, are twenty rocks, occupying a space of two miles long and one mile broad. On them is a light or lanthorn erected on eight pillars. The Hats and Barrels are a cluster of rocks six miles from the Smalls.

Aberthy Bay is on the north side of St. David's Head, to which succeeds Fishguard, east of Strumble Head. It is on a fine bay at the mouth of the Gwainn, which forms a good port unobstructed by sands, for vessels of ten feet. The bay is three miles in extent, with a depth of five to twelve fathoms; sand and mud bottom. The town contains 2,000 inhabitants, is on an eminence, and is esteemed one of the most healthy spots of Great Britain. Its trade employs twenty-three vessels of twenty to thirty tons, and twenty-five of fifty to one hundred. The exports are oats, 36,000 quarters; butter, 1,000 casks of seventy-four lbs. each; and slates. Its vessels are also employed in carrying coals from Glamorgan, Caermarthen, and Milford, to Ireland. It employs

Pembroke. seventeen boats in the herring fishery; has besides a productive fishery of turbot, john dory, and salmon, in the river.

Newport, a town of 1,400 inhabitants, at the mouth of the Nevern, which falls into a fine bay; a bank of sand renders the haven accessible only at high water. The depths are thirteen feet high water springs, and seven or eight feet neaps. Eglwys Dinas, is a fishing village on the west shore of Newport bay; and further east is Penny inlet, also a fishing village on Aberkiber bay.

Cardiganshire. The great gulf between St. David's Head and the peninsula of Caernarvon, is called CARDIGAN Bay. Both tradition and present appearances lead to the certainty of its having been formed by an irruption of the sea, which covered the fertile valley that formerly occupied its place. Among other indications are several ledges of rock, called *Sarn*, or causeways, running out from the shore; they are in succession, 1. Cadogan's Causeway, half a mile from St. David's Head, stretching out one mile and three-quarters. 2. St. David's Causeway, near the mouth of the Arth river, runs out a quarter of a mile. 3. St. Cymfelyn's Causeway near Gwallog, stretches off seven miles, and at its extremity is very rocky ground, on which, tradition says, stood a palace of the Welch princes. 4. Goat's Causeway near Aberdyvini, in Merioneth, runs out one mile and a half. 5. Sarn Badrig or St. Patrick's

St. Patrick's Causeway;* this is by far the most considerable, extending from within a mile of the point of Mochras, south of Harlech, twenty-two miles into the sea, in a serpentine line. It is a stupendous wall of rough stones, twenty-four feet broad, and at the outer end it forms a round head in which are sixteen great stones, one four yards in diameter. N.W. of Harlech another causeway, called Sarn y Bwlch, runs off, and is thought to join the preceding. Opinions are divided with respect to these two *Sarns*, some supposing them a work of art intended to secure the land they formerly inclosed from the attacks of the sea, while others believe them to be the bases of a ridge of natural rocks from which the superstratum of soil was washed away in the great irruption that is traditionally supposed to have taken place in 500. The trunks of large trees found in a tract of hard loam a considerable distance from the shore, corroborates this tradition. Cardigan.

The river Taefi or Tivi separates Pembroke and Cardiganshire; four miles from its mouth is CARDIGAN, a respectable town of 2,000 inhabitants, though its streets are generally narrow. Vessels ascend to its quay, and it has a considerable trade with Ireland, and a good salmon fishery. It has 292 registered vessels of 15 to 232 tons (10,000 tons,) and 1,000 seamen. Off the river's mouth is a little island. East of Cardigan are Pennar, Aberporth,

* From the belief that the Saint caused it to rise to facilitate his passage to and from Ireland; within a cable's length of its edge the compass needle looses its polarity and turns quite round.

Cardigan. Aberporth, New Quay a village with a ruined pier. Aberystwith a pleasant little town at the confluence of the Rheiddol with the Ystwith. It has latterly improved from the resort of sea bathers; its haven receives vessels of twelve feet, there being fourteen feet in the springs over the bar. Its exports are oak timber and bark, lead and copper ore, iron, corn, butter, slates, and ale. Its registered vessels are 210, between 18 and 270 tons (8,120 tons,) and 762 seamen. It has a customhouse and an old castle. Population 1,800.

Broth or Borth, five miles south of Aberystwith, formerly a Roman station, has now but a single cottage on the beach, resorted to by smugglers.

NORTH WALES.

Merioneth. The Dovey or Dyffi separates Cardigan and Merioneth shires, and forms a good haven to Aberdovey, in which vessels of nine feet may lay afloat at all times close to the town, or lay aground on a fine sand out of the stream of the tide which runs out four miles an hour; the rise is thirteen feet springs, and ten feet neaps.

Towyn is a genteel town of 2,000 inhabitants, finely situated, and visited for sea bathing. Abermaw or Barmouth, at the mouth of the Maw or Afon, is an ill built town of 1,500 inhabitants, situated on the slope of a rocky precipice, so that the houses are placed in eight tiers above one another. It is nevertheless frequented as a bathing place. A small island before the river's mouth forms

forms the haven, which is crossed by a bar that only admits vessels of eight or nine feet at high water. It exports oats, barley, butter, cheese, oak bark, and timber, besides flannels for £40,000, and worsted stockings for £10,000.

HARLECH, the county town, is a miserable collection of poor cottages, remarkable only for its castle on a rock overhanging the sea, and which is going fast to decay although it still has a constable. Mocris, a little creek, in fine weather receives vessels of six and seven feet.

Traeth Bach, and Traeth Mawr, are two inlets of the sea, having one entrance, and each receiving a little river; the greatest part of them dry at low water and become quicksands. Two thousand acres of land have been latterly recovered from that of Traeth Mawr by embanking, and an attempt is now making to recover the whole by a dyke across its entrance, near a mile in length. On this inlet is the village of Penmorfa, accessible only to boats.

Criceieth is a poor place of 386 inhabitants, on a neck of land jutting into the sea, and only worthy notice for a ruined castle. Pwlhely, a small market town on an inlet which receives three or four rivulets; it consists of one long street, and has a considerable coasting trade by vessels of twenty to sixty tons, which can enter its haven. 700 inhabitants.

St. Tudwell bay, vulgo Studwell, is sheltered to a certain extent by the little islands St. Tudwell and

Caernarvon. and Mercross. To it succeeds the bay named Hell's Mouth, from the height and configuration of the shores causing the wind to blow continually into it, while there is also a constant in-draft of the current, so that it is almost always a dangerous lee shore.

St. Towans Cove and Aberdaron, are near the south extremity of the promontory of Caernarvon. The south east point of which is Aberaron point, and the N.W. *Bruich y Pull (Conganum Prom.)*

Bardsey Island, one mile and half from the Promontory, is two miles long and one mile broad, containing 370 acres, of which one-third is mountain, affording only a meagre pasture for a few sheep and rabbits. The island rents for a hundred guineas a year, and has eight houses and seventy inhabitants, who pay no rent or taxes, and subsist by the cultivation of a little wheat and barley and by the collecting of puffin's eggs. On the island are the ruins of an abbey founded in the sixth century, the monks of which, according to their historian, received from God the privilege of *dying by seniority* as long as they continued to lead a holy life; but when they became corrupt they were again subjected to the common law of nature. The tides run with great rapidity between Bardsey Island and the promontory.

The gulf between the peninsula of Caernarvon and the isle of Anglesey is named Caernarvon Bay. It is lined by the high ridge of Snowden, the British Alps, whose summits retain the snow

the

the greater part of the year. The only port on this coast is Porth yn Lin, which is formed by a long point of land jutting into the sea and sheltering a cove on the west. It was some time in contemplation to make a haven here for large vessels by running out a pier to a rock which dries at low water, and to transfer the packets from Holyhead, but the idea was again abandoned.

Carnarvon.

The Isle of ANGLESEA, the Celto-sacred MONA, and the last retreat of the British Druids, is separated from the coast of Caernarvon by the straits of Menai, which where narrowest is half a mile wide. The island is an oblong square seven leagues long and five broad, containing 200,000 acres of surface; in general the soil is rugged and now totally without wood, though its ancient British name of *Ynis Dowyll*, or shady, denotes it to have been covered with forests. It is watered by twelve rivulets, and abounds in minerals, as red and yellow ochres, marble, alabaster, lead, coals, and considerable quantity of copper, which is exported as well as its grind and millstones. Its oysters are celebrated and also form an object of export, pickled; the other exports are oats, barley, and cheese to Liverpool, and many thousand head of cattle are swum across the Menai to supply the neighbouring markets. The cliffs are covered with samphire, the collecting which, as well as the birds' eggs, is the employment of many persons.

The Druidical monuments on the island are many *cromlechs* and ranges of stones set up an end, with

Anglesea. with inscriptions in very rude and unknown characters; the vestiges of two Roman forts are also seen near Newburgh. The population of the island in 1750 was 12,000, and in 1806, 34,000. The island is indented by many bays affording anchorage, and several of which might be made good havens, at small expense.

Beaumaris, the chief town, is a small place at the north extremity of Menai Strait, its population being 1,600; its haven has seven feet at low water, and the channel between it and the Leven quicksands forms a good road. It is a fashionable sea-bathing place. Redhead Bay, on the north coast, is visited by small craft for the limestone of its cliffs. Amlwich, west of Redhead, *from* being a fishing hamlet, has increased to a town of 5,000 inhabitants by the vicinity of the copper mines. Its haven is a natural creek of the sea between two rocks, its breadth being only sufficient for two sloops to lay abreast, but it has length for thirty vessels of fifty to 100 tons; it dries at low water.

Aberfraw on the S.W. one of the ancient residences of the Welsh princes, is now a village of 1,000 inhabitants, chiefly fishermen; its little haven admits vessels of thirty to forty tons, which export some thousand bushels of oats and barley.

Maldraeth on the south coast, is an inlet of the sea fifteen miles long, which appears to have been formed by some convulsion of nature, and one writer ascribes it without any hesitation to *the Deluge*.

There

There are several islands round Anglesea deserving notice; the first is Priestholm off the N.E. point, having its name from a religious edifice dedicated to St. Seriol, which was a place of great pilgrimage for men, no women being permitted to set foot on the island. Geraldus tells us that whenever the monks of this monastery quarrelled a legion of mice came and devoured all their provisions, but when the discord ceased, the mice disappeared! The island is about a mile long and is bounded by rocky precipices, but the interior covered with a fine turf, affording pasture to some sheep, which together with rabbits, and sea birds, particularly puffins, are its only inhabitants. It rents for £15.

Off the north coast of Anglesea are three small islands, called The Mice, and a mile and half from the N.W. point are the Skerries, which like Priestholm, pasture some sheep and have rabbits and puffins; on one of the rocks is a light-house affording a revenue of £1,400.

Holyhead Island is separated from the west side of Anglesea by a narrow channel crossed by a bridge. On the north side is the haven from which packet-boats sail to Dublin, the distance being twenty leagues and the run from eight to twelve hours with a good wind; six post-office packets are employed and one sails every day but Thursday. The advantage of Holyhead for the packet station, consists in being able to clear the shore with any wind, and thereby avoiding the danger of being embayed on the Welsh coast, which

Anglesea. which is a very dangerous lee shore. The haven of Holyhead falling dry on the ebb, the packets were obliged to wait for half flood to get out, which was a great disadvantage, and hence a pier has been recently built which forms a haven with four fathoms at low water. On a rock west of the harbour, called the South Stack, is a revolving light 200 feet high.

The north extremity of Holyhead island is a huge mass of rock hollowed into caverns by the sea; one of which is called the Parliament House, from its being visited by all the travellers that pass this way.

There is reason to suppose that Anglesea was anciently joined to the main by an isthmus, the remains of which are still observed in a ledge of rock that nearly crosses the strait, over which the meeting of the tides at the beginning of the flood causes an agitation dangerous to boats. In spring tides the rise is twenty feet and the stream at times runs eight miles an hour. The northern entrance to the strait, named Beaumaris Bay, is in great part filled by the Leven quicksand, supposed to have been formed by an irruption of the sea in the sixth century. At low water the ferry-boat from Beaumaris lands its passengers on this sand, whose edge is but a quarter of a mile from the town, and from hence they have a distance of four miles to walk on the sand to Aber on the main land, and as in fogs this road is extremely dangerous, the church bell of Aber is rung to direct the travellers. Besides Beaumaris, there are four other ferries in the

the strait, but all more or less incommodious, so that it is in contemplation to throw an iron bridge across it.

Returning to the main land of Caernarvon from Anglesea, the first place is CAERNARVON on the Seiont, the best town of North Wales, the streets being regularly laid out though narrow, and the population 3,000. The bar which crosses the Menai Strait admits only vessels of 300 tons into the haven; but it has nevertheless a considerable foreign and coasting trade. On an average of ten years, 1790-1800, ten vessels for foreign voyages, and 300 coasters cleared out, and seventeen foreign and 286 coasters entered. In 1808, it had sixty-one registered vessels of 3,385 tons and 221 men. The fort is under the custom-house of Beaumaris. The greatest export is slates to Ireland. Here are the ruins of a vast castle built in the reign of Edward I. Caernarvonshire.

Bangor at the north extremity of the Menai Strait, is situated on a rivulet between two rocky hills, and consists of one long street of neat houses and 1,770 inhabitants. It is one of the Menai ferries.

Aber Cegid, a village on a small rivulet, which has been recently improved into a haven for vessels of 300 or 400 tons and named Port Penryn. It is the grand depot of the slate trade from Lord Penryn's estate to Ireland, London, Bristol, &c. Before 1788 the export did not exceed 1,000 tons

Caernarvonshire.

a year, while at present 500 tons a week is the usual export from Port Penryn.

Aberconwy, at the mouth of the Conwy, is now a poor deserted place of 800 inhabitants; it is surrounded by massy walls with twenty-four semilunar towers at equal distances, and is visited for the picturesque ruins of its castle. At its pier small craft load slates and iron ore. The Conwy is half a mile wide at the town, at high water, and not above fifty yards at low, the remaining space being sand banks covered with twelve feet at high water; these sands still abound in the pearl muscle as they did in the time of the Romans, but they have long been neglected. The dangers of the ferry from Conwy, which is the grand thoroughfare to Holyhead, have suggested the propriety of building a bridge across the river, which is now in contemplation.

Between Conwy and Bangor the post road passes along a tremendous precipice, descending perpendicularly to the sea at one side, while on the other the lofty Penmanmawr rises with equal abruptness, and the masses of rock dislodged from its side, often roll into the road and block it entirely up.

The county of Caernarvon is terminated by the lofty round promontory named Great Ormes Head on the east of the Conwy River, and whose cliffs are the resort of millions of sea birds.

Denbighshire.

The county of Denbigh, from Ormes Head to the

the Clwydd, is fronted by elevated and cavernous limestone cliffs, with veins of lead ore. One of these caverns, named *Yr Ogo* "The Cavern" for excellence, is a magnificent object. East of the Clwydd the coast runs low. Denbigh

Denbigh has not a single port fit even for coasters; Aberglew or Abergaly on the Clwydd, is the only one that receives the smallest craft.

Flintshire.

The shores of Flintshire continue low, without any port to the Dee, on the west or Flint shore, off which is Holywell or Treffynon, a handsome town of 400 houses, famous for the well of St. Winifred, from which it derives its name, and which throws out twenty-one tons of water in a minute, forming a rapid rivulet at its mouth, which turns many mills and steam-engines in its course to the Dee.

Flint, the principal town of the county, has 1,100 inhabitants, and is only accessible to small craft through a channel in the banks; on an isolated rock in the midst of which is a castle. Passage boats sail from hence to Parkgate and Chester.

NORTH-WEST COAST OF ENGLAND.

The River Dee, which separates England and Wales, was held in the same veneration by the ancient Britons as the Ganges is by the Hindoos.

Cheshire. It empties itself into a large estuary (*Seteia estuarium* of Ptolemy), filled with sand-banks, which rendered both it and the river almost useless to shipping, until a new channel was cut from the city of Chester ten miles long, and supported by immense dykes, through which vessels of 350 tons now ascend to that town at high water springs. A great quantity of land has also been gained by embanking. The first place met in ascending the Cheshire side of the river is Parkgate, a new town risen to notice from being the place of departure of the packets for Dublin, four of which sail every week. It has also become a fashionable sea-bathing place.

Chester is an ancient city on an eminence, nearly surrounded by a reach of the Dee; it is composed of four principal streets diverging from a centre, and each terminated by a gate; these streets are sunk in the rock several feet below the ground flooring of the houses, which gives the town a singular appearance. The population is 15,000, and the trade very considerable to the Baltic, Spain, Portugal, the Mediterranean, and particularly to Ireland, from which it imports a vast quantity of linen cloth. Its exports are coals, lead, lead ore, calamine, copper plates, cast iron, and great quantities of cheese, chiefly to London. It also builds merchant ships of 500 tons, entirely of British oak, and of excellent construction.

The jurisdiction of the port of Chester extends on

on the Cheshire side of the Dee to Wirril, and on the Frith side to the mouth of the Clwyd.

The MERSEY, which separates Cheshire and Lancashire, empties itself through a great estuary filled with banks, and crossed by a bar with but a foot or two depth at low water, but the tides rise twenty-one feet at neaps, and twenty-eight at springs. The river is navigable for vessels of sixty tons (by sluices) thirty-five miles above Liverpool, to the confluence of the Irwell. The Weaver falls into the estuary, and is navigable for vessels of sixty tons to Northwich. Lancashire

LIVERPOOL, now considered the second town of England in commerce, in which it surpasses its rival Bristol, is situated on the right bank of the Mersey, three miles from its mouth, where it is 1,500 yards wide. According to the imperfect manner of calculating population in England, it contains 78,000 inhabitants. Its trade is with all parts of the world generally, but more especially with the West-Indies, west coast of Africa, and Ireland. From the flatness of the shore and other circumstances shipping were formerly subject to great inconveniencies, particularly that of distance from the town; to remedy this various docks have been excavated, the largest of which is 900 feet in length, and they are together capable of receiving 200,000 tons of shipping.

Lancashire. The following are the general results of the trade of Liverpool in 1801–2.

	1801.	1802.
British ships entered	1331 ...	1783
Foreign ships entered.....	641 ...	425
British ships cleared out...	1694 ...	2962
Foreign ships cleared out..	705 ...	461

In 1805 the ships belonging to Liverpool were 741 of 111,227 tons, and the tonnage that entered the docks 463,482.

The coast of Lancashire from the mouth of the Mersey is generally low, and in some places the sea is encroaching on it, particularly between the Ribble and Morecambe Bay, where it is said half a mile of ground has been lost.

PRESTON on the Ribble, three leagues from its mouth, is a handsome and genteel town of 12,000 inhabitants, but with little trade. The Ribble forms an estuary with many banks, dry at low water, but on which the tide rises six fathoms.

Blackpool is a bathing village, from which the Isle of Man is visible in clear weather. The Wyre water is formed by several small streams, and expands to a considerable breadth, but again contracts before its fall into the sea. Cockerham has a little tide haven for craft.

LANCASTER, the county town, is on the Lune or Lovne, five miles from the sea, into which the river empties itself by a wide estuary named Sunderland Harbour, but obstructed by shoals that prevent the access of vessels above 250 tons. Lancaster

caster has 10,000 inhabitants, and carries on a considerable trade, chiefly with the Baltic, Norway and the West-Indies. In 1799 fifty-two vessels cleared out for the latter with cargoes valued at two millions sterling. Lancashire.

Moricambe Bay is a large gulf between the mainland coast of Lancashire and the peninsula of Furness. The Lancashire shore is lined by extensive quicksands, across which lies the dangerous route to Furness.

Amongst these sands, and nearly at the head of the bay, the Kent or Ken empties itself, which is ascendable by small craft to Milthorp, the only point of Westmoreland having a navigable communication with the sea. From hence are shipped the fine Westmoreland slates for London, Liverpool, Bristol, &c.

The peninsula of Furness is formed by Morecambe Bay on the east and the River Dudden on the west. Off its south extremity are Walney and seven other islands, which seem to be the remains of a connected tract of land broken into islands by the sea, large roots of trees being found in the banks that surround them. Walney, the most considerable island, is ten miles long and one broad, and so low that it is often nearly inundated in extraordinary high tides. It has two hamlets, and at the south extremity a revolving light sixty-eight feet high. On Pile Island are the ruins of a castle.

Ulverstone, on the east shore of Furness, receives vessels of 150 tons by a canal from More-

cambe Bay one mile long. It has 3,000 inhabitants; exports iron, oak, bark, barley, oats, beans, and limestone. Rampside, at the south extremity of the peninsula, is a sea-bathing village.

Cumberland.

The Dudden separates Lancashire and Cumberland, and at its mouth forms a large shallow bay at high water; it abounds in salmon, trout, and flounders.

Ravenglass, at the confluence of the Esk, the Mite and the Ert, which nearly surround it, is a small ancient town with scarce any trade, but celebrated for its oysters.

St. Bees, an ancient village three miles south of the headland of the same name; this latter is composed of rocky cliffs rising abruptly, covered with samphire, and the resort of sea birds. On the summit is a light-house. The land of this head, there is good reason to suppose, was formerly an island, not only from its being still called Preston *Island*, but also from the appearance of the valley that now joins it to the main, and which extends a distance of five miles from the village of St. Bees to the town of Whitehaven; an anchor was also found in this valley at a considerable depth. The filling up of this ancient channel is supposed to have been by the depositions of the opposite tides meeting here.

WHITEHAVEN, three miles north of St. Bees Head, is a remarkable example of the progress of national industry. In 1566 it contained but

six

six fishing cabins, and had but one small bark; in 1683 it had increased only to ten thatched cottages; in 1693 it counted 2,272 inhabitants; in 1715, 4,000, and 1785, 16,400. Its vessels at present are 230 of 74,000 tons, and it exports 218,000 tons of coals annually, chiefly to Ireland. The town is neatly built, with regular and wide streets. The haven is formed by several piers, three of which project in parallel lines from the shore, and a fourth is crescent shaped, and has a battery and light-house. The haven runs quite dry at low water. Packets sail from hence to Douglas and Ramsay, in the Isle of Man, every Monday. Cumberland.

The waters of the Wampool form at its mouth a sandy estuary of four or 5,000 acres, left dry at low water.

Moresby is a pleasant village; as is Harrington, on a small brook that assists in forming a little haven called Bella Port, from whence sixty vessels are employed in exporting coal, lime, and iron stones of the neighbourhood.

Workington, on the left bank of the Derwent, has 4,000 inhabitants, and the best haven on this coast, formed by piers, and admitting vessels of 400 tons. It has 160 vessels, the largest of 350 tons, and exports 800 tons of coals a day, besides salmon, the produce of a good fishery in the river.

Maryport, at the mouth of the Ellen, has 3,000 inhabitants, and is neatly built with wide streets; its haven is formed by a wooden pier at each

Cumberland. each side of the river's mouth; it has 100 vessels, the largest ninety tons, and exports chiefly coals.

Allonby is a neat village, with a market and a good herring fishery; its population is 350; it is frequented for sea bathing. Between this village and Skinburnness the sea has greatly increased on the coast, and entirely washed away the ancient town of Skinburness, which was used as a depot by Edward I. in his invasion of Wales. The new Skinburness is a fishing hamlet.

WEST COAST OF SCOTLAND.

Dumfries. The Solway Frith separates England and Scotland, and is nine leagues wide at its entrance, but is much encumbered by sand banks, that increase annually in height and surface, thereby contracting its navigation. At its head it receives the River Esk, which is also the boundaries of the two kingdoms; and about a mile from which, on the Scottish side, is Gretna Green, celebrated in the annals of clandestine marriage.

The other places of any note in Dumfriesshire are Anan, on a river of the same name, a neat town, with a small coasting trade and considerable fishery; 2,600 inhabitants.

Dumfries, on the east bank of the Nith, nine miles from its mouth, is a handsome town of 5,000 inhabitants, it has three or four vessels employed in the Baltic and Portugal trade, and ten or twelve coasters.

coasters. The Nith separates Dumfries and Kircudbrightshires.

The River Urr, the most eastern in Kircudbrightshire, is two miles wide at its mouth, spreading to a large basin and forming a good port. It is navigable eight miles for vessels of eighty tons, and by it lime is introduced into the interior from the opposite coast of Cumberland. Kircudbrightshire.

KIRCUDBRIGHT, on the west bank of the Dee, five miles from its mouth, is the county town, and has 2,880 inhabitants.

The Dee flows through Kenmuire Lake, and is navigable to Tongland, two miles above Kircudbright, above which its bed becomes encumbered with rocks. It abounds in salmon, perch, and eels. In the mouth of the river is the little island of Ross, the entrance between it and the east shore being one mile and a half wide, safe and bold on both sides. Above this island are several good anchoring places, with sixteen feet water at low water, and forty-six at high. Opposite Kircudbright the depths are eight feet at low water and twenty-eight at high. On the sands in the river below the town is St. Mary's Island, on which the Earl of Selkirk has a mansion. Here are also the remains of a magnificent castle.

The River Fleet empties itself on the east shore of Wigton Bay, and is navigable for vessels of eighty tons to the village of Gatehouse. Creetown, at the mouth of the Cree, which falls into the head of Wigton Bay, is a newly founded and increasing

increasing place, having a number of coasters, and vessels of 500 tons can ascend to it.

Wigtonshire.

Wigton Bay separates the counties of Kircudbright and Wigton; it is three miles broad for six miles from its entrance, and has several good anchorages. Borough Head is its west point. Ascending from which along the west shore the places are Whitehorn, a town of 2,000 inhabitants, with one chief street and some cross lanes. It has a good haven sheltered by a little island, and passage vessels sail from hence to the Isle of Man in three hours, to Whitehaven in four, and to Dublin, Greenock, and Liverpool in eighteen.

WIGTON, the county town, is on a hill on the bank of the Bladenoch; it has but 1,400 inhabitants, chiefly tradespeople.

Luce Bay is between Burrough Head, on the east, and the Mull of Galloway, on the west. Nearly mid-channel between these points are the rocks named the Scars. In foggy weather this bay has been frequently mistaken for the opening of the north channel, and vessels have ran on shore on the quicksands, which line several parts of the bay, and out of which it is impossible to extricate a vessel. There are, however, several good fair weather anchorages in this bay, but in westerly winds there is always a great swell in it.

The peninsula of Galloway is bold and cavernous on the west. Its south point, or MULL, is also

also the south point of Scotland. Port Nessick, on the west side, has a little pier for craft of five or six feet. PORT PATRICK is a neat town of 1,000 inhabitants, with a small haven and a handsome quay and light-house. A packet sails daily between it and Donaghadee, the distance being twenty miles. The principal trade is the import of cattle from Ireland. One mile south of it is the castle of Dunskery, on the brink of a frightful precipice. Wigtonshire.

LOCH RYAN is a deep inlet at the north extremity of the peninsula of Galloway, ten miles long and two broad at the entrance, widening to four miles within, and forming an excellent harbour, the only danger being a sand-bank running off from the west shore, which makes it necessary to keep pretty close to the east shore. This sand-bank is covered with excellent oysters, and the bay abounds in cod, haddock, and other fish, lobsters and crabs. STRANRAER, at the head of the loch, is one of the principal towns of the west of Scotland, having 1,800 inhabitants; it is neatly built, and a small river runs through it. Vessels of 300 tons ascend to within a mile of the town, and those of sixty tons lay at its quay. It has 1,400 tons of shipping, and trades to Norway and the Baltic.

The Frith of Clyde is a deep gulf between the coast of Air, on the east, and the peninsula of Kintyre, on the west. The Air coast towards the south Airshire.

south and north is rocky and elevated, but in the middle between the River Doon and Saltcoats, a distance of twenty miles, is a sandy beach, shoaling a considerable way off. As the ports of Air and Irvine, on this coast, can only receive vessels of 200 tons at spring tides, ships embayed in the curve can only find shelter in westerly winds under Lady Island four miles N.W. of Air. The proper marks for anchoring here are the spires of the two beacons on the island in one, where a cable's length off shore, there is ten or twelve fathoms.

Trune is the only place on this coast where a good artificial haven may be formed as it is naturally sheltered from all winds but N.W. by a rocky peninsula running a mile into the sea. A vessel taking shelter in it at present may anchor half a cable's length within its extremity, in three fathoms at half flood. It is a sea bathing place.

Ballinhay, on the Stinser, is a good village. Four miles north of which is Ailsa Island, in the middle of the entrance of the Frith of Clyde. It is a conical rock, with many goats and rabbits on it, and the resort of soland geese and other sea birds, whose feathers, as well as the rabbit skins, pay the rent of the tenant, which is £25. On it are the ruins of an old castle.

Grivan, on the river of the same name, is a poor village, with a half dozen boats. In the river the depths are nine to eleven feet.

Air, the county town, on a river of its name, is a small well built place of 5,500 inhabitants. The

The river is crossed by a bar with but twelve feet high water springs. It sends some vessels to the Baltic, and to Ireland with coals, and builds vessels. Ayrshire

Irvine, three miles up a river of its name, has 4,500 inhabitants. Its haven has nine to eleven feet at common springs; but with a gale from S.W. the tide often rises to sixteen feet. It has a small ship-building establishment, some trade with the Baltic, and exports 24,000 tons of coals.

Saltcoats, the most fashionable sea bathing place of the west coast of Scotland, is built on a rock near sandy hills. It has a manufactory of salt, some coasting trade, ship building, and a herring fishery. Population 2,300. Largs, opposite the Isle of Bute, has 1,400 inhabitants, and is the general market of the neighbouring country.

The River Clyde, supposing its entrance to be at the Isle of Bute, is four miles wide, but the channel is narrowed by the Great and Little Cumbray Islands, nearly in the middle. The tide flows above Paisley, and it abounds in salmon and trout.

Greenock, on the south bank of the Clyde, is the emporium of the north and west of Scotland. In 1700 it was a mean village, but now contains 17,000 inhabitants, and carries on a direct trade to all parts of the world. It also builds a great many merchant ships for sale, and has a share in the Greenland Whale Fishery. The harbour is Renfrewshire.

nearly

Renfrewshire. nearly dry at low water, and vessels of eleven feet only can go in with spring tides.

The movements of its trade in 1803–4 was as follows.

	Inwards.			Outwards.		
	Ships.	*Tons.*	*Men.*	*Ships.*	*Tons.*	*Men.*
Foreign trade	406..	53,546..	5,183	352..	50,366..	3,673
Coasting & fishing ..	730..	35,532..	3,147	1,016..	47,009..	3,326
	1,136	89,078	8,330	1,368	97,375	6,999

Port Glasgow, three miles east of Greenock, has 4,000 inhabitants. The Clyde here is two miles wide, but so filled with banks, as only to afford a channel 200 yards wide close to the Port Glasgow shore. The largest vessels lay here at the quays or discharge their cargoes into lighters to be conveyed up to Glasgow.

The movement of its trade in 1803–4 was as follows.

	Inwards.			Outwards.		
	Vessels.	*Tons.*	*Men.*	*Vessels.*	*Tons.*	*Men.*
Foreign trade	113..	18,722..	1,081	117..	25,137..	1,692
Coasting & fishery ..	182..	7,226..	551	119..	7,202..	425
	295	25,948	1,632	236	32,339	2,117

Renfrew, the chief town of the county, formerly stood on the bank of the Clyde, but the river changing its course, deserted it. At present it communicates by a little canal, but has neither trade nor manufactures. 2,000 inhabitants.

Glasgow,

Glasgow, the principal town of Lanerk, and the second of Scotland, contains 90,000 inhabitants. It is fifteen leagues above Port Glasgow, vessels of seventy tons ascending to its quays, the rise of tide being seven feet. A board of commissioners has been appointed to improve the river, and operations are constantly carrying on to deepen it. This city receives the greater part of the merchandize imported by the Greenock and Port Glasgow vessels. *Lanerk.*

The only port town of Dumbartonshire is Dumbarton, on the Leven, which issuing from Loch Lomond, falls into the Clyde. The town has 2,500 inhabitants, and some brigs belong to it. Near the town is a castle on a two-headed rock, washed on one side by the Clyde and on the other by the Leven. *Dumbartonshire.*

Gare Loch and Long Loch are the first of the numerous sea lakes that intersect the N.W. coasts of Scotland. Gare Loch is seven miles long and two wide; and Long Loch, twelve miles long, approaching the celebrated fresh water lake of Lomond, within one mile and a half. It separates Dumbarton and Argyle counties.

The county of Argyle is composed of several peninsulas formed by sea lochs: the first of the latter is Loch Fyne, thirty miles long and three wide, in which a great herring fishery has been carried *Argyleshire.*

Argyle. carried on at different periods. At its head is INVERARY, the principal town of the county, having 1,000 inhabitants, chiefly fishermen.

The peninsula of Kintyre is united to the main land of Argyle by an isthmus a mile broad, between the east and west Lochs Tarbet; the former is a safe and capacious basin, with an entrance only 100 yards wide. On the south point of the peninsula, named the Mull of Kintyre, is a light. CAMBLETOWN, on the east side, has 7,000 inhabitants, and an excellent natural harbour, within the little island Dever; it is surrounded by high hills, and has a depth of six fathoms. Here is the grand rendezvous of the herring busses.

Sanda Island, two miles N.E. of the Mull, is celebrated in the Scandinavian annals by the name of *Avona*, as the rendezvous of the Danes in their desents on Britain.

The circuitous and difficult navigation round Kintyre, from the Clyde to the Hebrides and north-west coast of Scotland, is now avoided by means of a canal, nine miles long, cut from Loch Gilp (a bend of Loch Fyne) to Loch Crinan.—(See *Canals.*)

Having rounded Kintyre and passed West Loch Tarbet and Loch Crinan above mentioned, we come to Loch Fellam, on which is OBAN, the principal place on the north-west coast of Scotland, though but a village. The Loch forms a harbour capable of receiving 500 merchant vessels.

sels. Dunstaffnage, on Loch Etive, the place next in consequence, is a small hamlet, with an ancient castle. Argyle.

Lochs Linne and Lochabar, which communicate by a strait, penetrate into the heart of the bleak and dreary county of Inverness. At the head of the loch is Fort William, a triangular fortress, with two bastions and barracks for 800 men. The little town of Maryborough, adjoining, has 600 inhabitants, chiefly fishermen. Castle Duart, on Loch Linne, has a garrison of forty men from Fort William. Inverness-shire.

Glenely is a poor hamlet opposite the east end of the Isle of Sky. A mile north of it are Berneira barracks for 200 men, but which are usually occupied by a serjeant's guard.

The western coast of the county of Ross has no place deserving even the name of village except Ullapool, on Loch Broom, a fishing station established by the British Society in 1788; it may contain 500 persons. The loch is one of the most abundant in fish, and forms an excellent harbour for the largest fleets. Ross.

The west coast of Sutherland, which terminates at Cape Wrath, is worn into many sea lochs and inlets, where shipping can find shelter in all winds, but has not even a hamlet. Sutherland-shire.

CANALS.

Canals. The utility of canals for commercial communication, is thus described by Mr. Phillips, in his History of Canal Navigation. "All canals may be considered as so many roads, on which one horse will draw as much as thirty horses on an ordinary turnpike road, or on which one man will transport as many goods as three men and eighteen horses usually do on common roads; the public therefore would be great gainers, were they to lay out upon the making of every mile of a canal, twenty times as much as they expend upon a mile of turnpike road: but the mile of canal is often made at less expense than a mile of turnpike, consequently there is a great inducement to multiply canals."

This reasoning has been duly appreciated in England, and in consequence the canal navigation is carried to a greater extent than in any other country, China and Holland excepted, and in the latter the canals are chiefly the offspring of necessity from the nature of the country.

As our limits do not permit us much more than an enumeration of the canals of Great Britain, we shall confine ourselves to those which derive directly from the navigable rivers; following the outline of the coasts, as in the preceding description.

The Grand Western canal is to commence in the Exe at Topsham, and to terminate at Taunton in the Tone, a confluence of the Parret, thus forming a navigation between the English and Bristol

Bristol channels. Length of the canal thirty-five miles. Canals.

Arundel canal, from the Arun to Midhurst, eleven miles.

Andover canal begins at the tide water of Southampton at Redbridge, and terminates near Andover, twenty-two miles and a half; its greatest elevation is 176 feet. Its principal object is to supply coals to the inland country.

Southampton and Salisbury canal commences at the Itchin River at Northam, and extends parallel with the Southampton Water to the Andover canal, seventeen miles; its object is the trade between Southampton and Salisbury.

Shorncliff Canal is entirely a tide canal, commencing at Shorncliff near Hythe, and terminating near Rye, eighteen miles through Romney Marsh; its intention is both for a military defence, being flanked by several batteries, as well as for the import of coals and sea beach for repairing the roads, and for the draining of the marsh; it is navigable by vessels of 200 tons.

Thames and Medway Canal, from Gravesend to Chatham, eight miles and a half for barges; its object is to avoid the circuitous navigation round by the Nore.

The Grand Junction Canal commences in the Thames at the tide water in Brentford Creek, and terminates in the Oxford Canal at Braunston, ninety miles: it rises and descends several times, the highest point of elevation being 395 feet. Through Blisworth Hill is a tunnel 3,080 yards, and another

Canals. near Braunston 2,045 yards; it has besides several stupendous embankments, reservoirs of sixty-eight and forty acres, and steam engines for pumping up water into them. It cost near two millions sterling, and though its tolls produce £7,000 no dividend has yet been made to the proprietors of shares.

The Grand Surrey Canal commences in the Thames at Rotherhithe and terminates at Mitcham, twelve miles.

The Oxford Canal extends from the Thames at Oxford to the Coventry Canal at Leyford.

The Basingstoke Canal commences in the Wey, near its junction with the Thames, and extends to Basingstoke, thirty-seven miles: its elevation is 192 feet. It has twenty-nine locks, a tunnel three-quarters of a mile, and a large reservoir and feeder from the river Lodden; it is crossed by seventy-two bridges, and navigated by forty-five ton boats.

Wisbeach Canal extends from Lynn Regis to Wisbeach, six miles; intended to obviate the loss of navigation by the choaking up of Wisbeach River.

Cam River commences in the Ouse at Harrimore, and terminates at Cambridge, fifteen miles; for whose use it was chiefly constructed.

Wainfleet Canal, from Wainfleet to Alford, twelve miles.

Ancholme navigation commences in the tide-water of the Humber near Winthringham, and extends to Market Raisin, twenty-six miles; it was constructed

constructed as much to drain the fens as for navigation. Canals.

The Trent River is the commencement of more canals than any other of England except the Severn. The first in ascending it is the Stainforth Canal, extending from the Trent at Keaddy to the Don near Stainforth, fifteen miles.

The Foss Dyke, from the Trent at Torksey to the Witham near Lincoln, eleven miles.

Chesterfield Canal commences in the Trent at Stockwell, and extends to Chesterfield, forty-six miles. Its greatest point of elevation is 420 feet. It has sixty-five locks; a tunnel 2,850 yards through Hartshill and another of 153 yards; its boats are 150 tons, the exports coals and lead of Derbyshire. This canal cost £160,000.

Derby Canal, from the Trent to Derby, nine miles, to supply this town with coals.

Nottingham Canal in the Trent, joins by a side cut with the Trent and Mersey Canal.

Eronthan Canal, from the Trent near Holme Pierpoint to Grantham, thirty-three miles, rises eighty-two feet in the first six miles and a half, then a level of twenty miles, then a rise of fifty-eight feet; it has two large reservoirs.

Erewash Canal commences in the Trent near Sawley and joins the Derby Canal.

The Driffield Canal commences in the river Hull and extends to Great Driffield, eleven miles.

Market Wrighton Canal, from the Humber opposite the Trent by a sea lock, extends to

Canals. Market Wrighton, eleven miles; it is chiefly a drainage canal.

Stover Canal commences in the River Teign at Newton Abbot, and extends six miles and a half.

Burrowstowness Canal, from Burrowstowness to the Forth and Clyde Canal, seven miles, to avoid the dangerous navigation of the Forth.

Forth and Clyde Canal, though not the largest is one of the grandest undertakings of the kind in Great-Britain; it commences at Graingemouth in the Spey, and terminates at Bowlings Bay in the Clyde, thirty-five miles. The rise in the first eleven miles is 165 feet with twenty locks, then a summit level of sixteen miles, and a descent to the Clyde of 156 feet with nineteen locks. The breadth of the canal is fifty-six feet at top and twenty-seven at bottom, depth eight feet; each lock is seventy-five feet long and twenty broad. It has a reservoir of seventy acres, and a second of fifty, with ten large aqueduct bridges: it carries seventy ton vessels, and in Bowlings Bay are docks for their repairs.

The canal of Aberdeen commences at the tide-water of the Dee in Aberdeen Harbour, and follows the course of the Don, in which it terminates at Inverary Bridge, nineteen miles. Its highest point of elevation is 170 feet by seventeen locks, the breadth is twenty feet and the depth three feet and a half; its chief object is the conveying of paving stone to Aberdeen for export to London.

The Caledonian Canal, not yet finished, is intended to connect the two seas by the Murray Frith

Frith and Loch Linne, and thereby to avoid the tedious and dangerous navigation round by the Pentland Frith. It is to have twenty feet depth; it commences in the tide-water of Loch Beauly and terminates in the tide-water of Loch Eil, being formed of several canals uniting inland lakes. These canals are 160 feet wide at top, fifty at bottom, and twenty deep: they require twenty-three locks, each 158 feet long and thirty wide. Thirty-two miles of the navigation is through Loch Ness, which is one mile and a quarter to three-quarters broad, with a depth of 129 fathoms muddy bottom; it never freezes: government has a galley of thirty-eight tons employed on this lake. Lock Lochy, which also is included in the navigation, is ten miles and a half long and one and a quarter to three-quarters of a mile broad, and seventy-six fathoms deep. Loch Oich is three miles and a half long, and 100 to 200 yards wide, and twenty-six fathoms deep; and Loch Dufour, one mile and a quarter long and one quarter wide, with twenty-six feet depth. Canals.

The Ilchester Canal extends from the Parret River below Longfort to Ilchester, twelve miles.

Kennet and Avon Canal commences in the Avon at Bath, and terminates in the Kennet at Newbury, fifty-five miles and a half; it has two basins and two stone aqueducts; fifty ton boats navigate it.

The Wilts and Berks Canal joins the above at Lemington, and extends to the Thames and Isis navigation at Abingdon, forming a communication between the Thames and Severn.

Leominster

Leominster Canal commences in the Severn at New Stourport, and terminates at Kington, forty-six miles; it has a tunnel at Pinsax 3,850 yards, and another at Soussnont 1,250 yards, with several aqueduct bridges; it cost £370,000.

Gloucester Canal commences at the Severn tide-water, at Berkely Pill, and terminates in a large basin again communicating with the Severn at Gloucester; it has several tide locks, is seventy feet wide and fifteen to eighteen deep, admitting vessels of 300 tons. Its object is to avoid the tortuous and tedious navigation of the Severn to Gloucester, the distance by the canal being but eighteen miles.

The Hereford and Gloucester Canal commences in the Severn at Gloucester, and terminates near the Wye at Bysters-gate, in Hereford, thirty-five miles. In the first eighteen miles, the rise is 195 feet and a half, then a summit level of eight miles and a half, and a descent to its termination of thirty feet; it has three large tunnels, at Oxenhal 2,192 yards; at Cano Frome 1,320, and near Hereford 400.

The Stroudwater Canal commences in the Severn near Stroud, and terminates in the Thames and Severn Canal, eight miles, its elevation is 168 feet; the Severn River boats are used on it.

The Thames and Severn Canal commences in that of Stroudwater, and terminates in the Thames and Isis navigation, thirty miles. Its total rise is 343 feet, and it has thirty-two ascending and descending locks, with a tunnel two

miles

miles and three-quarters in length, at Sapperton, 250 feet beneath the external surface of the hill, and fifteen feet wide. Canals.

The Worcester and Birmingham Canal commences in the Severn at Diglis, and terminates at Birmingham, twenty-nine miles.

The Droitwich Canal commences in the Severn at Hawford and terminates at Droitwich, five miles and a half. Its chief object is the export of salt.

The Stafford and Worcester Canal commences in the Severn at Stourport, and terminates in the Trent and Mersey Canal, forty-six miles and a half. Its elevation is 166 feet, with thirty-one ascending and descending locks. It has three short tunnels and basins, is thirty feet wide at top, and five feet deep, and is navigated by twenty ton boats.

Stratford Canal commences in the Avon, at Stratford, and terminates in the Worcester Canal, at King's Norton, six miles from Birmingham, twenty-three miles and a half.

The Monmouthshire Canal commences in the tide water of the Uske River, and communicates by railways with Pontypool, &c. The highest point of elevation of the canal is 805 feet, and the railway has 1,230 feet more, making the whole elevation 2,035 feet above the entrance lock. Its chief object is the export of coals: it cost £275,000.

Glamorgan Canal commences in the Severn, near Cardiff, and terminates near Merthyn, twenty-five

Canals. five miles. Its object is the export of coals, iron, and lime.

Swansea Canal, from Swansea Harbour, through Brecknock and Glamorgan, seventeen miles and a half; for the export of coals and ironstone.

Neath Canal commences in the Neath River, and extends fourteen miles. Its object is the export of coals, iron, and limestone.

Chester Canal, from Chester to Northwich, eighteen miles; rise, 170 feet.

Liverpool and Leeds Canal is the largest in England, being 130 miles long, commencing at Liverpool and terminating at Leeds, forming a navigable communication between Liverpool and Hull. It has ninety-one locks ascending and descending, each seventy feet long and fifteen and a half wide. The breadth of the canal at top is forty-two feet, the depth four feet and a half, and the boats thirty tons. At Tone is a tunnel of 1,090 yards, eighteen feet high, and seventeen wide. It has also several aqueduct bridges. It cost £600,000. Passage boats from Liverpool to Leeds traverse this canal.

The Elesmere Canal commences in the Mersey, nine miles above Liverpool, and terminates in the Severn, at Bagley Bridge, fifty-five miles. A cut also forms a communication with the Dee. Its chief object is the export of coals, lime, and slates of the Welsh mountains.

The Bridgewater Canal begins in the tide way of the Mersey, and terminates at Manchester, forty miles. Its rise is eighty-two feet, by ten locks:

locks: it is fifty feet wide at top, with a depth of five feet, and is navigated by fifty ton boats. It has seven tunnels and three large aqueduct bridges. Canals.

Lancaster Canal runs seventy-six miles through Lancashire and Westmoreland, commencing at Houghton and terminating at Kendal.

Glenkennis Canal commences in the tide water of the Dee, near Kircudbright, and terminates at Dalry, twenty-seven miles. Its object is the export of coals, lime, and stone.

Loch Crinan Canal has been cut across the isthmus that separates Loch Gilp and Loch Crinan, nine miles. Its rise is fifty-eight feet, and its depth twelve to fifteen feet, so that it is navigated by sea vessels. Its object is to save the tedious passage round the Mull of Kintyre, which often takes three weeks, while the passage by the canal is effected in twenty-four hours.

SCILLY ISLANDS.

The Scilly Islands belong to the jurisdiction of Cornwall, and are seen from the Land's End, from which they are distant ten leagues due west. Scilly Islands.

The climate of these islands is mild and pure, there being seldom frost or snow in winter, and the heat of the summer is tempered by sea breezes. They are, however, subject to fogs, but these are

Scilly Is. ends. are not unhealthy, and in general, the inhabitants who live temperately, are free from diseases and survive to a great age. The islands produce abundance of vegetables and some wheat, but have no timber trees and very few fruit trees, the sea air preventing their growth. Their cattle and horses are small. They have abundance of game and sea birds.

ST. MARY is the most considerable, being about three leagues in circuit. It is principally composed of elevated rocky hills, abounding in mineral ore, but has some fertile spots, inclosed with stone fences. There are also two tracts of morass, in one of which is a lake. Heughtown, the only town of the islands, is on the west, in St. Mary's Sound Here is a castle strongly situated, which commands the port. The population of the island is about 700.

A mile S.W. of St. Mary is ST. AGNES, on which is a high light-house. The island has some fortifications, is tolerably cultivated, and has about 300 inhabitants.

The other inhabited islands are TRESCO, with a village called the Dolphin, consisting of a church, and ten to fifteen stone houses. On this island are the ruins of a monastery.

ST. MARTIN contains thirty to forty families. At one extremity of it is a white beacon, built of rock stone, to direct ships through the sounds.

BRYER, a very hilly little island, with a few families.

SAMPSON,

SAMPSON, forming in two circular hills, has but two or three families. Scilly Islands.

These islands form several good harbours, particularly St. Mary's Sound, between St. Mary and St. Agnes, which is often ran into for shelter by vessels unable to get up the English Channel. New Grimsby, between the islands Tresco and Bryer, is also a good but small harbour. And there are many other safe anchorages among the islands, but narrow and intricate, and even St. Mary's Sound requires a pilot.

Before navigation had arrived at its present state of improvement, the Scilly Islands and Ushant on the French coast, were the Scylla and Charybdis of the English Channel, and in endeavouring to escape the one many ships were lost on the other. The most noted and melancholy shipwreck on Scilly was that of Sir Cloudesley Shovel, with four ships of war, who ran directly on them before the wind, in a dark foggy night of 1707. Of the four ships crews, two of the commanders and twenty-five men only were saved. At present these rocks are little feared, and ships instead of, as formerly, cautiously laying to for several nights previous to making the land, now boldly run for the entrance of the channel, and the first land they see, if bound up it, is often the Lizard Point, or even the Isle of Wight.

ISLE OF MAN.

Isle of Man. The ISLE OF MAN is situated in the Irish Channel within sight of the three kingdoms, the distance from the point of Ayre, its north point, to Beeshead in Wales being ten leagues; from the same point of Ayre to Burrowhead in Scotland five leagues; and the distance from the S.W. coast to Kerry Point in Ireland nine leagues. Snaffield Hill, near the east coast, is the highest point of the island, being 1,740 feet above the sea.

The island is ten leagues long and three to four broad, containing 30,000 inhabitants in seventeen parishes. The hilly tracts afford only pasture, but the low land is well cultivated. It has mines of iron, lead, and copper, none of which are worked, and quarries of marble, slate, and building stone. The climate differs little from that of the north of England, and is generally healthy.

In the middle ages the Isle of Man was the rendezvous of the Scandinavian pirates, in their descents on the neighbouring coasts of Great Britain and Ireland, and the kings of Man were for some centuries masters of these seas. About 1623 Alexander king of Scotland having defeated the Danes, obliged Owen, or John, king of Man, to do homage, and the island continued tributary to Scotland till reduced by Edward I.; since when the kings of England have been the paramount sovereigns, though it continued to be governed by the descendants of its Danish princes until Edward

ward III. dethroned the last queen, and bestowed the island as a fief on Montagu Earl of Salisbury, whose honours and estate being forfeited, Henry bestowed Man first on the Percy family, which being also attainted, then on Sir John Stanley, Earl of Derby, whose descendant Earls of Derby enjoyed it till by failure of heirs male it devolved on the Duke of Athol, as husband of the sister and heiress of the last Earl of Derby. Isle of Man.

The position of this island between the three kingdoms long rendered it the emporium of smuggling, on which account the British government in 1765 purchased the regalities of the island from the Duke of Athol for £70,000, the duke retaining his territorial property, and the island some of its privileges, particularly that of freedom from arrest for debts contracted in England, and hence it is the asylum of many insolvent debtors. The Manks language, still spoken by the common islanders, is a corrupted Erse.

The island besides herrings exports some corn, cattle, butter, bacon, lead, kelp, coarse linen, and spun cotton. All exports to Great Britain and Ireland are duty free, as are all imports for the use of the manufactures.

Castletown, the seat of the government, is at the S.E. extremity, and is a neat town with wide and clean streets; in the middle of the town is Castle Rusher, a magnificent fortress of free-stone, the ancient residence of the kings of Man.

Douglas, at the mouth of a rivulet, is the most populous and commercial place in the island, having

Isle of Man. ing 4,000 inhabitants, and a good pier-head for vessels of 500 tons. The bay also affords shelter in winds from N.W. to south. There is a handsome light-house on the pier.

Ramsea is a neat town of 300 houses at the N.E. side of the island, at the mouth of the river Selby, which falls into a fine bay sheltered from all winds but N.E., having on the south Maughold's Head, a bold rocky promontory, under which is a celebrated well. In this bay an excellent port might be made for the largest ships, by running out a mole to a rock. Small craft enter the Selby, and lay dry at low water. Here is a light-house.

Laxey is a group of cottages in a glen at the bottom of a creek, opening into an extensive bay, which might be made a good harbour.

Peel, on the west side of the island on the river Neb, is a neat town of 280 houses; the south extremity of its bay is bounded by Peel Island, with a castle and the ruins of a cathedral.

Derby Haven, on the S.E. end north of Castletown, is formed by St. Michael's Island, joined to the main island by a causeway 100 yards long.

Off the south end of the island is the islet called the Calf of Man, three miles in circuit, and surrounded by rocks.

GUERNSEY, JERSEY, &c.

The group of islands in the English channel, of which Guernsey, Jersey, and Alderney are the most

most considerable, as a dependency of the duchy of Normandy, are the only remains of the ancient sovereignty of England over France. They are situated in the gulf of St. Malo, three to six leagues from the French coast.

Guernsey.

GUERNSEY,* the largest, is thirteen miles long and eight broad. On the south and S.W. the shores are high, precipitous, and broken by deep ravines. On the north and east the coasts are low, indented by bays separated by rocky head-lands, and lined with sunken rocks, which together with the strength of the currents are a grand natural defence to the island, preventing the approach of a naval force.

Among the curiosities of the coasts is *La Cave Mahie*, on a level with the sea near Prevolet Point, on the south; from an entrance of nine feet wide and six high, it expands to fifty feet in height and breadth and 200 feet in length, ending in granite points. The base of the island is entirely of this substance, and several of its heights consist of conical ascents of this grand substrata, raised apparently by a power acting vertically.

The climate is humid, and the winters stormy. The face of the island is diversified by moderate hills, and watered by numerous streams, serving to turn mills and fertilizing the vallies, every inch of which is cultivated with the greatest care, affording the pleasing appearance of industry and its attendant *comfort*, which is conspicuous in the

* *Sarnia* of the Itinerary of Antonine, whence Guernsey is derived.

neat seats of the gentry surrounded by orchards and gardens, and the clean habitations of the peasantry. The inhabitants are, however, not celebrated for their hospitality, and (more particularly in Jersey) the pride of ancestry is as inveterate as the *caste* of the Hindoos.

Among the marine productions found on the shores are the sea aure, delicate shell-fish, the sea-mouse, *aphrodita aculeator*, and the sea anemone.

The produce of the island is chiefly corn and apples, and the principal manufacture is that of worsted jackets, caps, and stockings, of the first of which there is a great consumption by seamen. Guernsey sends vessels to the Newfoundland fishery, and in war fits out many privateers; in peace smuggling with the coast of England is an organized business, the objects being French brandies and lace, &c. Some emery stone is also exported, there being a rock of this substance on the island.

The Norman feudal laws are still in use in these islands, but meliorated by time, which has worn down their oppression; they are collected in a book called "*le grand Costumier.*" The king's writs from Westminster cannot be executed in these islands, and consequently they offer an asylum for insolvent debtors; neither are they bound by any act of the British legislature unless specifically named, nor can these acts be put in force until sanctioned by the civil government of the islands.

The Norman French is the language most generally spoken, and many Norman customs are observed

served amongst the lower class. The trial by jury Guernsey.
is not established, nevertheless the impartial administration of justice and the suppression of crimes is adequately provided for; an appeal lies in the last resort from the island tribunals to the king in council. The population of the island of Guernsey is 15,000.

The only town of Guernsey is St. Pierre, or St. Peter, on the east, composed of one long street, with some good houses, and several dirty lanes. Its port is between two stone piers thirty-five feet high, and forming an entrance 100 feet wide at top and sixty-eight feet at the surface of the sea; the piers are of rough masonry, and formed of vast blocks of granite run out on arches; they include a space of several acres; the spring tides rise twenty-eight or thirty feet, and the neaps twelve to fourteen. The road to the S.E. is much exposed.

Castle Cornet, which commands the port, is on a steep rock, insulated by a channel 600 yards wide; it is accessible only at one point, and is entirely of granite. There are three other castles on the island, which is besides fortified in every accessible part.

Jersey is twelve miles long and six broad. The Jersey.
north side is composed of rocky cliffs forty to fifty fathoms high, while the south shore is nearly level with the sea; a ridge of hills runs through the centre, whose sides are covered with orchards, from whose produce 24,000 hogsheads of cyder have been made in one year. The other indus-

Jersey. trial pursuit is the rearing cattle, particularly sheep, whose wool together with cyder form the only exports, and the island is obliged to import corn from France and England. The number of inhabitants is 20,000.

The two towns of Jersey are St. Heliar and St. Aubin. The former is the chief place, and is situated in the bay of St. Aubin, nearly in the middle of the south side, the best road of the island, but still dangerous, from numerous rocks scattered round the entrance.

The town consists of several good streets, and is defended by numerous batteries, but chiefly by Elizabeth Castle, on a rock insulated at high water, but accessible at low.

On the west side of the island is St. Owen's Bay, and on the east St. Catherine's Bay, which are safe roads according to the wind. All the accessible parts of the island are defended by batteries and towers.

Alderney. ALDERNEY is separated from Cape la Hague by a channel three leagues wide, called the *Race* of Alderney, from the velocity of the tide, which in the springs is six or seven miles an hour. There is depth through the channel for the largest ships. Alderney is four miles long and two broad, is fruitful in corn and pasture, and noted for its breed of cows. The population is 1,000, chiefly collected in a little town of the same name as the island, of 200 houses; its harbour, named Crabby, is two miles south of the town, and only fit for small craft.

Sark

Sark Island is two miles long, and surrounded by steep rocks, but produces corn enough for its 300 inhabitants. Sark.

Among the numerous rocks round these islands the most considerable is Jethou, which seems to be of volcanic formation, and there are other volcanic indications in these islands. The Caskets are a cluster of rocks above and under water, on the largest of which is a light-house, shewing three lights in a triangle.

SCOTTISH ISLANDS.

The first Scottish islands we are to notice are those of Bute and Arran, forming the thirteenth county of Scotland under the name of Buteshire. Bute is separated from the coast of Argyle by the strait of Kyle, from one to half a mile wide. The island is seven leagues long and one to two broad, containing 20,000 acres, and having 7,000 inhabitants. Its centre is mountainous; the only minerals deserving mention are fullers earth, topazes, and Scotch pebbles. It has some fresh water lakes and rivulets abounding in fish. The shore is worn into many caverns, and the ruins of ancient druidical temples are still seen. The chief industry of the inhabitants is rearing cattle, sheep, and goats.

Rothsay, the chief place, is a neat little town on the east coast, with a pier haven; it is engaged in the herring fishery.

Close to the west side of Bute is the little island Inchmarnoc, a mile in circuit, beautifully diversified with hill and dale, and inhabited by its proprietor.

Arran Island is separated from the peninsula of Kintyre by Kilbrannan Sound; it is eight leagues long and from two to three broad, with 7,000 inhabitants. The interior is rocky and barren, but it abounds in coals, fullers earth, crystal, &c. The cock of Arran, a hill near the north end of the island, is a noted sea mark; it has four fresh water lakes and several rivulets, abounding in salmon, trout, and other fish. It exports barley, 100 tons of kelp, and has sixty boats in the herring fishery. The Duke of Hamilton is proprietor of the greater part of the island.

On the N.E. coast is Lamlash, an excellent harbour, formed by Holy Island before it, a great mountain covered with heath. Ranza, on the north, has an ancient castle.

The Great and Little Cumbray Islands lay in the middle of the Frith of Clyde, between Bute and the main. On the S.W. side of the Great island is Milnport Village, with a convenient dry tide harbour with eleven feet in the springs; this island is chiefly composed of lime and free stone, and the latter is exported for £200 a year. On the Little Cumbray is an ancient castle and a light-house; it has seven remarkable caves. The population of the two islands (which are included in Buteshire) is 506.

The

THE HEBRIDES.

Off the N.W. coast of Scotland are two archipelagos, known by the general name of the HEBRIDES or WESTERN ISLANDS; the first lays close to the main land, and is attached to the county of Argyle. The second lays at a considerable distance to the west, and belongs to the county of Inverness. Upwards of 300 islands are counted in the two groups, but not above thirty are of any consequence. We shall commence our notice with those nearest the main, going from south to north.

ELSA or AILSA is a perpendicular rock of great height two miles in circuit, with only one landing place at a little beach on the N.E. It pastures some goats, abounds in rabbits, and is the resort of Soland geese, whose young and feathers, as well as the rabbit skins, pay the £33, at which it is rented from the Earl of Cassilis. On the N.E. side is a square tower of three vaulted stories.

GHIA, two miles from the west coast of Kintyre, is six miles long and one broad, with 500 inhabitants; it produces barley, oats, and flax, and in 1772 afforded a rent of £600.

CARA, south of Ghia, is three miles in circuit, and inhabited by a single family.

ILAY, one of the most fertile of the islands, is twenty-eight miles long and sixteen broad. On the north it forms the deep Loch Indal, a good harbour; it contains mines of lead and other minerals, and has

Hebrides. has several lakes. The population is 7,000, and in 1772 it afforded a rent of £2,300. Bowmore, the chief place, is on Loch Indal, and is a good village with a fair and market.

Jura is separated from Ila by Ila Sound, one mile broad. The island is ten leagues long and one to two broad, forming two peninsulas; it is one of the most rocky and rugged of the Hebrides, rising near the south end in several conical summits, called the *Paps* of Jura, the highest of which, named *Ben-an-oir*, or the Golden Mountain, has 3,000 feet elevation. Red deer are still found in the mountains, and abundance of growse and moor game. There are two good harbours on the east side, but the whole business of the island employs only a few open boats. The population is 1,200.

Colonsay, a rocky island three leagues long and two broad, has 500 inhabitants. Oransay is separated from Colonsay by a channel dry at low water; it is three miles long, and the population is 300. These islands have great numbers of rabbits, but no hares.

Scarba is separated from Jura by the strait of Corryvreken, already noticed for its whirlpool. The island is three miles long, very rugged, and mountainous.

Long Island and Balnanaigh are small islands, composed entirely of slate. *Seyl* is separated from the main land of Argyle by a channel so narrow, that a bridge of a single arch has been thrown across it.

Easdale

EASDALE is an entire rock of slate, from which five millions of slates are exported to England, Norway, and Canada.

KERRERA, a mile from the main land of LORN, is four miles long and two broad; it has two good harbours.

MULL is separated from the peninsula of Morvern, in Argyle, by a strait one mile and a half broad. It is eight leagues long and five broad, rugged and mountainous, but with good pasture and some corn land; it has 6,000 inhabitants, and is the joint property of the Duke of Argyle and the M'Leans. Tobermoray, the chief place, is a village on the N.E. with a good haven, where a fishing station has been founded.

ULVA is a small island in Loch Tua, on the west of Mull, the property of the family of M'Quarrie. Inch Kenneth, in the same loch, is a little fertile island, with the vestiges of a chapel.

ICOLUMKILL, Iona or Hii, one of the most fertile and romantic of the Scottish islands, is two miles and a half long and one broad, with 150 inhabitants in two or three hamlets, who export some cattle and grain; it is the property of the Duke of Argyle, and is celebrated for having afforded an asylum to St. Columba and other holy men, after the introduction of Christianity. The ancient cathedral of St. Mary is a beautiful structure, and contains the ashes of some Scottish, Irish, and Norwegian kings, as well as the tomb of St. Columba, and many inscriptions relative to the

Hebrides. the religious ceremonies of the primitive British Christians.

STAFFA, one mile long and half a mile broad, is an immense pile of basaltic columns arranged in natural colonades, and exceeding in magnificence any thing of the kind in any other part of the world. The cave of Fingal is a natural cavern, 371 feet long, fifty-three broad, and 117 high, supported by pillars of this substance. A single family inhabit this island.

The Threshanish are three islands between Mull and Coll.

COLL is four leagues long and one broad; it is a great rock thinly covered with soil, producing a quantity of kelp, which is exported chiefly to Ireland. It has not a single tree, and several tracts of land formerly cultivated are now rendered barren by the sand blown from the shores. The streams are numerous, and it has forty-eight lakes, abounding in trout. It has a lead mine, not worked; has no foxes, which are met on the other islands, but abundance of rabbits; contains 1,000 inhabitants, and is the property of the Duke of Argyle and Maclean, and with Tirey forms a parish. Lochern on the east is a good harbour.

TIREY is four leagues long and one broad: is generally level and fertile, and has quarries of a fine rose coloured marble. It has no haven for any thing else but boats; has twenty-four lakes, and is said to be unhealthy. It rears cattle, horses and sheep, and exports 250 tons of kelp; a

regular

regular ferry boat crosses between this island and Coll, and between the latter and Mull. Hebrides.

Lismore Island, before the entrance of Loch Linne, is a vast mass of limestone, but covered with a good soil. Tradition says it was anciently a deer forest, and very large deer and ox horns are found in the soil. It was also the ancient residence of the bishops of Argyle; it has 1,600 inhabitants.

Rum is three leagues long and two broad; has not above 200 inhabitants, who rear cattle and sheep; it has several rivulets, in which are salmon. Loch Serefort on the east is a good harbour.

Egg, four miles long and two broad, is hilly and generally rocky.

Muck, two or three miles long and one broad, is low with a good soil, but without port, except for boats. Cannay, three miles long and one broad, is only worthy of notice for a hill, near which the magnetic needle takes a reversed direction, whence it is called Compass Hill. It has a good haven formed by the little island Sanday, on the N.E. Basaltic columns are seen on its shores.

Sky, the largest of the islands near the main, is fifteen leagues long and from two to six broad; the strait between it and the main is only a quarter of a mile broad in one place, and is the usual track of ships bound to and from Norway. The whole island is composed of rocky mountains, and the coasts are so indented that every mile presents a harbour

a harbour. The climate is cold and damp; the rivers abound with salmon, and the sea lochs with sea fish. In 1750 the population was estimated at 16,000, but in 1772 was reduced to 1,200, chiefly by emigration to America.

Strath, the principal place of the island, is on the S.E.

Dunvegan Castle, at the head of Loch Follart, on the north, is the residence of Macleod, who has the honourable title of laird of Sky.

Of the great number of rocky islets round Sky, one only is noticed by travellers: it is named *Bord Cruin*, or the Round Table, and is the easternmost of several islets off the point of Slate, the S.W. point of Sky; it is 500 yards in circuit, with perpendicular sides, leaving but one landing place, from which the ascent to the top is by a spiral path that admits but one person. In the middle of the platform on the summit is a well of fresh water.

Rasay, between Sky and the main, is four leagues long and one broad; though generally rocky, it produces pasture and corn, and has some plane, ash and fir trees; the highest point is named by the people Dunlan, and by seamen Rasay's Cap. The island has lime and free stone; it is considered the most humid of the chain, having near 300 rainy days in the year.

Rona, north of Rasay, three miles long and one broad, though very stony has some pasture.

The little island Fladda-huan, on the north side of

of Sky, is remarkable for the annual periodical arrival of flocks of plovers from Sky in September, and their return in April.

The western Scottish islands, the *Hebudæ* of the ancients, lie in a semicircle from S.W. to N.E., and are separated by narrow straits filled with rocks, having the appearance of originally forming one land. The physical construction of this chain is worthy of notice: towards the west they are all flat, while they ascend towards the east, and at last form a precipitous ridge. This conformation exposes them to the whole force of the western winds and waves from the Atlantic, and the encroachment of the sea on this side is very observable. The rocks are primary, and their structure different from that of the continental islands or main land, all of which dip towards the east.

The climate of these islands is divided into a wet and dry season, the former commencing in September and lasting till May; the summers are hot. The vegetables that the climate permits to be successfully cultivated are flax, hemp, potatoes, and barley. The sheep and black cattle are small but numerous.

The channel between this chain and the main land is called the Minch.

The southern cluster is called Bishop's Islands; the other principal ones in succession are Watersay, three miles long.

Barray, eight miles long and two broad, is intersected

tersected by several sea lochs; it is barren and mountainous.

South Uist is thirty miles long and two to three broad; it has several sea lochs, affording good anchorage, and rears numbers of horses, cattle and sheep.

Benbicula, ten miles in circuit, is only deserving notice for the ruins of a nunnery.

North Uist, five leagues long and three broad, is hilly on the east and fit for pasture only; on the west it is level, and produces corn ten to twenty fold. Loch Momoddy on the east is a great rendezvous of fishing boats, 400 vessels having loaded here in a season. There are several other inlets for vessels on the east side, but the west is inaccessible.

Berneeray, a little island between North Uist and Harris, has a fresh lake, frequented by innumerable sea birds; it is inhabited, as are those of Pabbay, Calligray, and Eusay.

Harris is a peninsula joined to the island of Lewis by an isthmus a quarter of a mile broad; it belongs to the family of Macleod, who reside on it, and have constructed a basin and quay for shipping at Loch Lodwell on the east. This island, including Lewis, is mountainous and rocky, except the west coast, which is bordered by a strip of level ground.

Taransay, Scalpay, and Scarp are three small inhabited islands west of Harris. On the east point of Scalpay is a light-house, and near its west side two good harbours.

The Aire of Lewis, a peninsula on the east coast

coast, and on the same coast is STORNAWAY, at the head of a loch, the only town of the Hebrides, with 2,000 inhabitants; its houses are of stone slated, and it has a church and custom-house.

The Butt of Lewis, or Cape Orby, is the north point of the island.

The detached islands belonging to the Hebrides are ST. KILDA or HIRTA, a solitary rock fifteen leagues off Lewis. It is about three leagues in circuit, rising to a mountain named Congara, 5,400 feet above the sea; its shores are so rocky that there is but one landing place on the east, and this only practicable in fair weather; it is inhabited by about twenty-seven families in a hamlet on the east, and who cultivate eighty acres of land, raise cattle, and take sea birds.

SOA is a high steep rock, a mile in circuit, half a league from the west side of Kilda.

The FLANNAN ISLANDS, or Seven Hunters, are five leagues west of Galleyhead, in Lewis.

BARRA and RONA are two high, rocky and barren islets twenty leagues north of the Butt of Lewis, from which they are visible in clear weather. RONA, the northern, is two miles in circuit, and surrounded by rocks.

ORKNEY ISLANDS.

The ORKNEY ISLANDS, *Orcades* of the Romans, are separated from the N.E. extremity of Scotland

Orkney Islands.

by the Pentland Frith, about two leagues broad; they consist of sixty-seven islands, twenty-nine of which are inhabited, and the remainder are distinguished into *holms* and *skerries*, the former affording pasture for sheep and the latter barren rocks. The different islands are separated by narrow channels called friths, fiords, and sounds, and the whole occupy a space of seventy miles north and south, and fifty east and west.

The islands are most elevated on the west, declining to the east, which is the effect of the mineral strata dipping in the east direction, similar to what is noticed in the islands that line the coast of Norway, and therefore permitting the supposition of cotemporary formation. "The appearance of these islands," as described by an ingenuous writer, "is more imposing than engaging, rugged and precipitous, presenting in many places scenes truly grand and magnificent; vast rocks, of various heights, dreadfully rugged and broken, opposing their rude fronts to all the fury of a tempestuous ocean, which in some places has formed great detached pillars, in others has excavated vast natural arches and caverns, that mock all human magnificence."

The minerals most deserving mention are lead and iron, the former containing particles of silver, but too poor to tempt the working. Slate is also found on some of the islands. Though, like most of the northern countries, there are evident proofs of these islands having formerly possessed forests, they are now totally bare of wood, and the

the principal fuel of the inhabitants is peat, with which most of them abound. The climate is humid, and the winters raw and tempestuous, but with little frost or snow. The production of corn is in general sufficient for the population, which is from twenty to 25,000, and the pastures afford a sufficient nourishment to cattle and sheep. Orkney Islands.

The Pentland Frith is celebrated for the velocity of its tides and the whirlpools they create, the dangers of which imagination and ignorance have magnified as they did the Charybdis of antiquity. The tide of flood setting from the south along the west coast of Scotland, naturally follows the direction of the coast, and from the confinement of the channel sets through the frith at the rate of nine or ten miles an hour, and rushing over a rocky and uneven bottom, as well as from the counter currents near the shores, a violent commotion of the water is produced, which may be dangerous to open boats, but can never be so to a ship, for though the velocity of the stream may render her sails or rudder useless, they are also unnecessary, for the stream will carry her through the strait clear of the land on either side.

Nearly in the middle of the frith are the two rocks called the Pentland Skerries, on one of which is a light-house, and their only inhabitant, besides rabbits, is the man who has the care of the light. In the frith is also the little island Stroma, two miles from the coast of Caithness, to which county it belongs; it is one mile long and half a mile broad, and affords some corn. Its

Orkney Islands.

shores are composed of frightful precipices, beaten so furiously by the western waves in winter, that the spray rises above them and forms little runs, which are collected into a reservoir, and made to turn a corn mill. The rise of tide in common springs is six fathoms, but in a gale from the N.W. two fathoms more. SWANAY or SWINNA, also in the frith, is inhabited by four or five families, whose men are pilots for the frith.

MAINLAND or POMONA, the grand island of the archipelago, and occupying its centre, is eight leagues long and one to three broad, but so deeply indented by bays that these dimensions give no accurate idea of its surface. Though very hilly, it has a considerable portion of fertile land, and on it are the two towns of the islands, Kirkwall and Stromness: the former is the chief place, and is on a bay of the north coast, forming a good haven; it consists of 300 neat houses, inhabited by the chief persons of the island, besides shopkeepers and tradesmen. Here is a vast cathedral dedicated to St. Magnus, and the ruins of the bishop's palace. Stromness, on the west side of the island, has recently risen from a poor hamlet to a thriving town, and almost vies with Kirkwall; its haven is entered by two to 300 vessels a year, caught in foul winds in the Pentland Frith.

The following are the inhabited islands south of Mainland. 1. SOUTH RONALDSAY, two leagues long and one broad, 1,600 inhabitants, is one of the most fertile, and has a good harbour on the north. 2. BURRAY, separated from the preceding island

island by a strait two miles broad, is only five or six miles in circuit, but produces potatoes, carrots, and other garden vegetables in greater perfection than the other islands. 3. Hoy, the highest land of the islands, is three leagues long and two broad, but at high water is nearly divided into two islands. On the north is a hill 1,600 yards high called the Warth or Ward of Hoy, and at its foot in a dark glen is the greatest curiosity of the island, a hermitage cut out of a solid block of freestone, thirty-eight feet long, eighteen broad, and nine thick, and which seems to have tumbled from the hill. This island chiefly pastures sheep; its population is 1,400; it has three good harbours, of which that named Longhope is much frequented by vessels for shelter. West of Hoy is a stupendous rock called the Old Man of Hoy, 1,500 feet high, and resembling the ruins of an immense building. Orkney Islands.

4. Flotay, noted for its good road for ships, named Panhope, and also for its abundance of moor game. It has 200 inhabitants.

The lesser islands south of Mainland are Graemsay, one mile and a half from Stromness, three miles in circuit, is in great part composed of *schistus*; it has 180 inhabitants. Teray pastures some sheep. Sinthay; Cavay, has only three families. Lamau; Lamholm, one family.

The islands north of Mainland are Shapinshay, tolerably fertile, has 750 inhabitants; Stronsay, two leagues long and one broad, has two good harbours, 900 inhabitants. Papa Stronsay is a

Orkney Islands.

little pleasant island off the north end of Stronsay. EDAY, five miles long and two broad, abounds in peat which it supplies to the other islands; great numbers of lobsters are taken round it; population 600. It has two good harbours. SANDAY, four leagues long and one broad, is one of the most populous and richest of the archipelago, making 500 tons of kelp a year; it has two good harbours. WESTRAY, two leagues long and one broad, has abundance of pasture and peat; 1,400 inhabitants. PAPA WESTRAY, N.E. of the preceding, is a pleasant island with a little lake of fresh water; on it are the ruins of two buildings, supposed to have been druidical temples. It has 200 inhabitants.

FARAY is one of the most level of the islands and is clothed with grass. EAGLESHAY, two miles long, was accounted so much superior to the other islands, that it was the residence of the Bishops and Earls of Orkney; it is also noted for the murder of St. Magnus; it has 200 inhabitants.

ROUSSAY, two leagues long and one broad, is one of the most rugged of the islands; it has 700 inhabitants. NORTH RONALDSAY, three miles long and one broad, is one of the most level islands; it has 420 inhabitants. Weir, 150 inhabitants; Enhallon; Gairsay, a conical hill, fifty inhabitants; Domsay, a fine little island a mile in circuit, before the bay of Kirkwall, has but one family.

Copinshay, east of Mainland, is a noted mark for seamen; it has but two or three families.

Fair

Fair Island lays between the Orkneys and Zetland, has a little haven. Orkney Islands.

The commerce of the Orkney Islands consists in the export of some beef, pork, tallow, hides, linen, yarn, coarse linen, (60,000 yards,) feathers, and especially kelp, to the amount of 1,500 tons. The imports besides luxuries are coals. The following is a statement of the trade in several years :—

		£.	Vessels.	Tons.	Men.
1770	Exports	12,018	17	825	76
	Imports	10,406			
	Balance	1,612			
1780	Exports	23,247	20	940	90
	Imports	14,011			
	Balance	9,276			
1790	Exports	26,596	33	2,000	170
	Imports	20,803			
	Balance	5,793			
1800	Exports	39,677	21	1,375	119
	Imports	35,789			
	Balance	4,888			

The fisheries of the Orkneys are totally neglected except that of lobsters. The territorial property of the islands is at present in Lord Dundas, by purchase from the Earl of Norton, to whose family they had been granted by the crown.

ZETLAND ISLANDS.

The ZETLAND ISLANDS, situated between the latitude 59° and 62°, are about 120 in number, of which thirty-four only are inhabited, the rest being *holms* and *skerries*. Their coasts are rugged, precipitous and cavernous, and their interior bleak, rocky and barren, with some scattered patches of cultivated ground, but without tree or even shrub. The highest elevation is named Rona's Hill in Mainland, and is 4,000 feet, serving as a long landmark for seamen.

The climate, though from the longevity of the inhabitants it cannot be unhealthy, is extremely disagreeable, the winter setting in in October and lasting till April; and though there is little frost or snow, the weather is so tempestuous and fogs so constant, that all communication between the islands is suspended. The spring and summer are short, and the autumn long, gloomy, and wet. The extremes of the thermometer are 75° and 22°. The medium 65° in summer and 38° in winter.

Oats and barley are the only grain that will arrive at maturity, and the chief riches of the islands is in their fishery,* and their cattle and horses. The cattle are larger than those of the Orkneys, but the horses are very diminutive. The feathers of the sea-birds that frequent the skerries in innumerable flights, also afford a profitable

* See Home fisheries.

fitable object of export. The population has encreased within the last century, in 1775 being 15,200; in 1792, 20,186, and in 1802, 22,379. In some of the northern islands, the Norse or Norwegian language is still spoken. Zetland Islands.

MAINLAND, the principal island, is twenty leagues long north and south, but is so intersected by sea inlets called *Voes*, as to have no place two miles from the water; the coasts are alone inhabited, the interior being composed of barren hills, bogs and lakes, the latter abounding in eels of enormous size and fine trout.

LERWICK, the only town of the islands, is on the east of Mainland, and contains 300 families, the houses of one or two stories form a long, narrow and crooked street, along the shore. The harbour, named Brassay Sound, from the island before it, is one of the best in the world, being capable of holding 2,000 sail; it is the general rendezvous of the Dutch herring busses, and of the Greenland ships out and home.

Scallaway, on the west side of Mainland, formerly a populous place, is now a poor village; it has a castle of four stages.

The islands east of Mainland are :—

Moussa,	Linga,	Fetlar,
Brassay,	Three Skerries,	Linga,
Noss,	Hasenssay,	Balta,
Whalsey,	Uyea,	Unst.

Of these the only ones worthy of particular notice are Brassay, forming the sound of its name; it is four miles and a half long and three broad, has some

Zetland Islands.

some fertile ground. Noss, adjoining Brassay on the east, is the most fertile of the islands. Fetlar, five miles long and four broad, is also fertile. Balta forms an excellent harbour between it and Unst, completely landlocked.

Unst, nine miles long and four broad, is the northernmost island; in comparison with the other islands it is level, though it has several hills. It has no rivers but many small fresh water lakes.

The islands west of Mainland are:—

Hebra,	Papa,	Venestry,
Burra,	Linga.	Papa Little,
Trondrer,	Hevra,	Muckle Roe,
Hildesay,	Hoy,	Linga,
Chenies,	Foula,	Yell.
Oxna,	Papa Stour.	

Of these Yell is the only one of any consideration, being twenty miles long and six broad, and has no less than eight harbours.

Foula, a solitary islan dfour leagues from Mainland, is only two leagues in circuit, but rises on the west in perpendicular cliffs that conceal their heads in the clouds; it has but one landing place on the east side.

The trade of the Zetland Islands in 1809 employed ten vessels of 768 tons, and fifty-three men and boys. The exports were:—

1,075 tons of tusk and cod.....	£20,000	200 barrels of beef ..	£500
45 coal fish.....	450	500 tons of kelp	4,000
300 barrels of herrings	405	3 —— of tallow....	180
900 —— of fish oil..	2,250	20 —— of butter....	1,000
		Knit stockings and gloves.....	5,000
			400

400 cow hides	£200	feathers	£50
100 doz. calve skins ..	60	150 horses	450
150 — rabbit skins..	52	100 cattle	300
12 — otter skins ..	57	50 sheep	25
seal skins	12		

Zetland Islands.

Imports from Leith by two sloops, making each seven tripsa y ear.. £24,500
By other vessels..... 4,000
Flour, barley, rice, and meal.... 11,000
500 tons of salt, duty free..... 625
200 tons of coals 600
Wood and boats from Norway.... 1,800

The unfavourable balance is compensated by the money left in the islands by the Greenland ships exceeding £7,000, by the monthly remittances of seamen of part of their pay £3,500, and by other items exceeding £4,000.

OF THE

MARITIME COMMERCE

OF

GREAT BRITAIN.

Though, as we have already had occasion to notice, it seems certain that the Phenicians, in prosecuting their maritime speculations, occasionally visited the coasts of Britain; yet, in the state of

of barbarity in which the Britons were found by Cesar; their commercial relations could only have been such as are formed in the very first state of civilization, t at is where tillage and agriculture have began to supersede the hunter and shepherd state. In the south parts of the island the Britons had arrived at this first step, while in the other parts they still lived by pasture, clothed themselves with the skins of beasts killed in the chase, and dwelt in temporary huts reared in the forests and marshes, with which the country was covered; thus they without difficulty shifted their habitations, as actuated by the convenience of pasture, by the hope of plunder, or the fear of an enemy, and as they were ignorant of all the refinements of life, their wants were few and their desires
B.C. 600. limited. Their commerce with the Phenicians and Carthaginians was therefore confined to the barter of tin, lead and skins, for brass trinkets
B.C. 300. and other trifles. According to Diodorus, the Greeks, after the voyage of Pytheas, also visited the coasts of Britain for the purposes of com-
B.C. 55. merce, and Cesar found some commerce existing between the Britons of Kent and the opposite Gauls.

Under the Roman domination, though the Britons lost their savage independence, they rose in the scale of civilization, by the adoption of useful arts, and their commerce increased in proportion to the new wants that this improvement created. The articles exported from Britain to Rome were tin, lead, hides, lime, chalk, pearls, horses, oxen, dogs,

dogs, and slaves, for at this early period of our history, the merchants of Bristol dealt in human flesh, purchasing men and women in all parts of the island, and selling them abroad as slaves; and it is even recorded that they first rendered the women pregnant to increase their value!

The departure of the Romans and the inroads of the Scots and Picts, threw the Britons back into the state of barbarity from which they had began to emerge, nor was the confusion attendant on a divided empire during the Saxon Heptarchy, much more calculated to elicit improvement; no sooner however were the kingdoms united under one sovereign in the person of Egbert, than commerce and manufactures revived in spite of the descents and ravages of the Danes, and under the Saxon monarchs London, Exeter and Bristol are recorded as considerable trading cities. A.D. [illegible] A.D. [illegible]

Towards the end of the ninth century, when the Great Alfred had purged the country of its Danish invaders, a regular system of barter took place with the neighbouring nations, and Athelstan, the grandson of Alfred, passed a law remarkable for the age, by which a merchant who had made three foreign voyages on his own account, was admitted to the rank of a thane or gentleman. Ethelred in 979 granted a free trade to a society of German merchants, established in England under the name of Emperor's Men, on condition of paying certain tolls, and presenting the king at Christmas and Easter with *two pieces of grey cloth and one of brown, ten pounds of pepper,* A.D. 928.

pepper, two vessels of vinegar, and five pair of gloves.

A.D. 1066. The Norman Conquest again produced a considerable unfavourable revolution in commerce, by the introduction of the feudal system, which paralized enterprize by destroying the liberty of the subject, at the same time that it rendered trade ignoble in the privileged class. Hence the chief trade of England was engrossed by the Jews, who began to settle in the country about the time of the Conquest, and who, though oppressed in every possible way, amassed vast fortunes by usury. In the year 1100, a number of Flemings, driven from their own country by an irruption of the sea, settled in England and introduced manufactures of wool. At the same period the people of Bristol traded to Ireland, but the principal seats of commerce were London and the cinque ports from their proximity to the continent.*

The

* The cinque ports were originally five havens, to which were granted certain privileges, on condition of defending the coast from invasion. The origin of these establishments may be traced to the Romans, who, though they possessed a superiority of naval force, found it necessary to adopt measures of defence against the Norman pirates, who assumed the titles of "Sea Kings of the North," and for this purpose nine stations on the coast opposite Gaul were fortified. The same necessity continuing long after the departure of the Romans, gave rise to the foundation of the cinque ports, which took place in the reign of Edward the Confessor or William I. To each of the chief ports were attached several subordinate *members*, in the following series:—1. HASTINGS, with Seaford, Pevensey, Hidney, Rye, Winchelsea, Beakesbourne, Bulverheath and Grange, as members.—2. SANDWICH, with Fordwick, Reculver, Sarre, Walmer, Ramsgate and Deal.—3. DOVER, with Faversham, St. Margaret, Woodchurch, Goresend, Kingdown, Birchington, Margate, Ringwold, and Folkstone.—4. ROMNEY, with Lydd, Romehill and Ringwold.—5. HYTHE, with Westmeath. RYE and WINCHELSEA were afterwards raised to the rank of cinque ports, with

The exports were horses, wool, woollen cloths, leather, corn, lead, and tin. The imports were, linens, fine woollens, silks, for the royal family only, steel, iron, spices and other productions of India.

In the reign of Edward I. the coal mines first began to be worked in England, and so rapid was the progress, that in 1379 a duty of sixpence per ton was levied on the ships employed in the coal trade, to be applied to their protection. At this same period the English traded to Italy, Spain, and Portugal, as well as to all the countries of the north, and in 1381 the principle of the Act of Navigation was introduced into the legislation of the kingdom, by a law declaring that "none of the *king's subjects* shall carry forth or bring in merchandize, but only in ships of the king's allegiance." This law however seemed to have little effect in turning the *king's subjects* to the profession of commerce, and the trade continued to be principally carried on in the ships of foreigners and by foreign merchants, residing in England and licensed by the kings under different denominations. A.D. 1310.

with Tenterden and Excove as members of the former. The principal condition on which the cinque ports held their privileges, was the furnishing a certain number of ships and mariners, for military service.*

The freemen or barons of the cinque ports have by law many honorary privileges at the coronation of our kings, which are still allowed them. The sinecure offices of Lord Warden, and of Constable of Dover Castle, are united in one person. There is also a sinecure admiral, whose jurisdiction extends from Shore Beacon Essex to Redcliff, near Seaford in Sussex.

* See hereafter "Navy."

tions. Such were the German merchants chartered by Henry III (1259). The Steelyard Company, a branch of the Hanse Association, whose privileges were confirmed by Edward IV. &c. Indeed, as we have already had occasion to notice, the carrying trade of England was almost entirely engrossed by the Hanse Association until the reign of Edward VI. when the English merchants first began to complain of the monopolies granted to foreigners, and particularly to the Steelyard Company, which in one year exported 50,000 pieces of cloth, while the English merchants exported only 1,100. Edward feeling the justice of these complaints revoked the privileges of this Company; and though foreigners again received favours from the bigotted Mary, at the instigation of her Spanish husband, they again fell into discredit under Elizabeth, from whose reign may be dated the origin of English commerce, in the just sense of the term.

A.D. 1580.

A.D. 1558. The reformation, which was only firmly established by the accession of this princess, was attended with the most happy consequences on the population and energies of the nation, for by it 150,000 persons, who had been restrained from marriage, were, if we may use the expression, put into circulation, and 50,000 others who had been maintained in idleness by the convents, were obliged to seek a livelihood by industry.

In this reign were chartered the African, East-India, Russia, Eastland and Turkey Companies, and though such institutions are generally allowed to

to be injurious in an advanced state of commerce, they must also be admitted to be the best nurses of its infancy.

The threatened invasion by the Spanish Armada, gave the first grand impulse to the marine of England by the purchase of ships from foreigners, and by the formation of national seamen; and so rapid was the progress, that after the destruction of the Armada, a census being taken of the merchant vessels in England, it was found that Norfolk, Suffolk, Essex, Kent, and Sussex, possessed 471 ships, or more than half the number in the whole kingdom thirty years before. The peaceable James I. gave great encouragement to trade and ship-building, and in his reign British colonization began in America, and opened a new theatre of industry and enterprize. At this period 400 vessels were employed in the coal trade of Newcastle. A.D. 1606.

The merchant vessels of England were however still of small burden, and it continued customary to hire large ones from foreigners for distant voyages or extensive transactions. At length in 1616, an order from the king and council was issued on the petition of the merchants of London, prohibiting the export of British commodities in any but British bottoms; and the effect was such, that the whole nation applied itself to the creation of a merchant marine, at the same time that the ships being built of a larger size were capable of long voyages, and the British merchant flag was now first seen in the Mediterrannean. So great was the impulse, that from a ship of 100 tons, being a A.D. 1616.

kind of prodigy at the commencement of the reign of James I.* a number of ships of three, four, and even 500 tons, were now launched from the British docks. In 1615 there were not ten vessels above 100 tons out of London; and in 1622, Newcastle had 100 sail, each exceeding that tonnage.

Commerce continued to flourish during the first part of the reign of Charles I., when the trade to the west coast of Africa and East-Indies received a great extension, and the whole commerce of Spain was in the hands of the English, who also sent a great quantity of woollen cloths to Turkey.

A.D. 1651. In the protectorate of Cromwell, the English began to dispute with the Dutch the dominion of the seas, and hence arose the famous Navigation Act, by which it was prohibited to all foreign ships to trade to the English colonies, without license; and at the same time the merchandize of Asia, Africa, and America was forbidden to be imported into England, except in British bottoms, or merchandize from any part of Europe except in vessels belonging to the country of which the merchandize was the produce or manufacture. An additional article added after the Restoration, obliging the master and three-fourths of the crews of vessels sailing under the English flag to be English subjects, completed this great monument of maritime legislation.

Such

* Charles I. granted a bounty of five shillings per ton on the building of all ships above 200 tons.

Such were the effects of the navigation act, added to the increasing population of the American colonies, and consequent increase of their trade, that between the Restoration and Revolution, the English merchant marine was doubled. While A.D. 1688. at the same epoch, the revocation of the edict of Nantz, which ruined the manufactures of France, caused a great and rapid improvement in those of England, by the influx of the persecuted protestants, who introduced or perfected the manufactures of silk, cotton, linen, hats, jewellery, cutlery, and clock-work, and thereby freed England from an onerous dependence on France for these objects.

The Revolution, by securing liberty, gave a new impulse to every kind of industry; and the union of Scotland, by identifying the interests of the two kingdoms, proved equally advantageous to each, and to the empire in general.

From this epoch, commerce has continued in a constant progression, unchecked by frequent wars, or even by the separation of those colonies, which were thought to be the grand basis of the commercial fabric, until it reached a height that drew down on us the envy and animosity of all Europe; and in great measure caused those wars which have desolated Europe for the last twenty years, and to which the energies of Great Britain have at length happily put an end, while the contest undertaken to humble her, has only served

to establish her proud preeminence amongst the nations of the earth.

Previous to Buonaparte's system of continental blockade, the one-third of the whole trade of the Baltic was in the hands of the English,* who imported from Sweden iron, copper, pitch, tar, fir planks, and herrings; and exported to it tin, lead, coals, beer, butter, cheese, manufactured goods and colonial produce. The balance is against England about £250,000. The first commercial treaty with Sweden is in 1766, by which the English were placed on the footing of the most favoured nations, except with respect to the port of Wismar, where the French enjoyed certain privileges.

From Denmark and the Duchies the English imported little or nothing, but from Norway a great quantity of pine spars and planks, and some salt fish. The balance in favour of Great Britain £100,000. The commercial treaties with Denmark bear date 1639 and 1654: by the latter, England is to be favoured as much as Holland, with respect to customs, tolls of the Sound, Gluckstadt, &c.

By the ports of Prussia, England introduced her manufactures and colonial produce into the interior of Poland and a part of Germany, and received timber, hemp, flax, flax-seed, pitch, tar, potash, hides, and tallow.

In

* See vol. I. page 416.

	£
In 1800 to 1802 the value of imports was	5,823,405
And the exports	4,198,696
Balance against England	1,624,709

Great Britain imports from Russia hemp, flax, flax-seed, tallow, iron, fir planks and balks, Russia duck and linen, isinglass, furs, horse-hair, hogs'-bristles, pitch, tar and rosin, potash, feathers, to the annual amount of three millions; and gives in return colonial produce and manufactured goods, for half a million, the balance being paid in cash and bills.

In recent years the English Russia trade employed about 600 ships of 200 to 300 tons each, of which 400 were employed in the trade to Petersburg.

The first commercial treaty between England and Russia was on the discovery of Archangel in 1553, and by it the English received considerable commercial privileges, which they gradually extended to a perfect monopoly. These privileges were, however, at different times curtailed, and in 1648 the English were entirely banished the empire; but soon after were again permitted to trade, on the same footing as other nations. On the building of Petersburg, most of the English merchants established at Archangel removed thither, and were granted considerable privileges. The number of firms thus established was of late years twenty-eight to thirty, who formed a kind of

association, residing in a magnificent factory, though their speculations were individual.*

In 1797 a commercial treaty with Russia was concluded, by which British and Russian subjects are mutually placed on the same footing in the ports and dominions of either.

The trade between Great Britain and Holland was, before the American war, very considerable, 800 to 1,000 vessels entering the Dutch ports annually. The principal objects of the trade were exports of woollen for £450,000, coals 20,000 chaldrons, 25,000 hogsheads of tobacco, twelve to 15,000 barrels of rice, 2,500 to 3,000 tons of lead, two to 3,000 barrels of pickled salmon, herrings, and sprats, 26,000 casks of butter, and 10,000 barrels of beef from Ireland, besides from this latter country tallow, hogslard, salted hides, ox horns, &c, as well as manufactures and colonial produce. The imports were madder for £60,000, flax £15,000, flax-seed £50,000, and spice to a great but unascertained amount. The last treaty with Holland was in 1788, which contained only one article respecting commerce, by which the produce or manufactures of the United States, linen excepted, were permitted to be imported on the same terms as those of the most favoured nations.

From France, England imports wines, brandies, corn, cambricks, lawns, silk stockings, lace, gold and silver embroidery, books, jewellery, and toys, though

* See commerce of Russia, vol. I. page 411.

though the duties on some of these objects amount almost to a virtual prohibition. The exports to France are cotton and woollens, hardware, and earthenware. The balance has always been in favour of England. A treaty of commerce was first concluded with France in 1786, by which a perfect reciprocity of commercial privileges were granted to the subjects of either nation in the European dominions of the other, with many reductions and modifications of duties; this treaty, however, which was to last for twelve years, died an unnatural death by the Revolution.

From Spain, Great Britain imports brandy, wines, oil, dried and wet fruits, wool, indigo, cochineal and other dyes, colours, cork, gold and silver coin; and exports tin, lead, woollens, cottons, linens, salt fish, iron and brass work, haberdashery, &c. The balance is in favour of England half a million sterling. The treaty with Spain, 1783, gives mutual freedom of commerce in the European dominions.

From Portugal the imports to England are 60,000 pipes of port wine, 12,000 pipes of Lisbon, fruits dried and preserved, salt, cork, the whole amounting to one million and a half sterling; and the exports nearly cover this import, in manufactured goods. By a treaty concluded with the Prince Regent of Portugal in 1810, the ports of the Portuguese colonies are opened to British commerce, and British subjects are placed on the same footing as subjects of Portugal, except with respect to Brasil wood, tobacco, and gold dust,

the export of which is solely reserved to Portuguese subjects.

From Italy England imports raw and thrown silk, some wine, oil, soap, fruits, and anchovies; and exports tin, lead, leather, salt fish, East-India goods, and manufactures. The balance is fifty to £60,000 in favour of England.

The trade of Great Britain to the Turkish dominions has, as we have elsewhere observed, latterly declined, chiefly from the concurrence of the French, whose woollens, from their lightness and colours, better adapted to the oriental taste, have almost entirely superceded those of England. The general impoverishment of the Turkish empire has also reduced the consumption of foreign objects. The imports from Turkey are raw silk and cotton, carpets, fruits, drugs, skins, and coffee of Mocha. The exports are woollens, Surat and Bengal cotton and silk goods, cotton velvets, Birmingham and Sheffield wares, Staffordshire earthen-ware, &c. The balance of trade is against England £150,000.

The first political and commercial relations with Turkey began in 1581, when Queen Elizabeth created a Turkish company, and sent an ambassador to Constantinople. With the exception of the mission at this capital, the British commercial agents in the Turkish dominions are generally either Greeks or Jews, who receive a trifling salary,* and do very little credit to the nation they represent.

England

* That of the vice-consul at Scio is but £12 a year.

England has scarce any other trade with the Barbary States than for the provisioning of Gibraltar; and the greater part of the English commodities they consume they receive *via* Leghorn. In 1582, the English first entered into treaties with these piratical states for the protection of their flag; these treaties were, however, no longer observed than while the British ships of war were at hand in the Mediterrannean to chastise any breach of them. At length it was agreed that all English vessels should be furnished with Mediterrannean passes, to identify their flag, and secure them respect.

The commerce of England with the Black Sea is too inconsiderable to merit attention: in 1803 seven small vessels only entered this sea.

From the west coast of Africa England imports gold dust, ivory, gum senega, wax, dye woods, guinea pepper; and exports salt, brandy, coarse cottons, iron, pewter, and brass utensils, fire arms, shot, powder, lead, coarse glass and earthen ware, beads, &c.* This commerce, previous to the abolition of the slave trade, gave England a favourable balance of six to £800,000.

The details of the commerce between England and India having been already given, we have here only to refer to the abstract at the end of this volume for the progressive increase. In 1810, the company's shipping consisted of sixty-four regular ships of

* See vol. II. page 471.

of from 756 to 1,200 tons.....68,000 tons.
and thirty-nine extra or small ships..22,000

Total.....90,000 tons

manned by 8,000 seamen.*

The trade of the Hudson's Bay Company has also been already noticed, page 85, as well as that of Canada, &c. page 99, where it will be seen that the imports to England from that colony exceed one million a year.

The following is the abstract of the commerce of Great Britain with her North American continental colonies (official value†).

Exports.

Years.	British produce & manufacture.	Foreign & colonial merchandise.	Total.
1809..	£1,484,383..	£263,733..	£1,748,116.
1810....	1,578,464....	266,095....	1,844,559
1811....	1,658,581....	251,158....	1,909,689
1812....	1,134,987....	284,032....	1,439,019

In 1810 the exports to Quebec amounted to £972,887

And the imports were, Produce of the soil and forests.....942,324
Furs, &c.....120,503 } 1,062,827

In 1810 the exports to Newfoundland were 377,735

To the United States of America Great Britain exports her manufactures for from three to four millions

* See Public Trading Companies.

† The official value being given according to the prices rated in the custom-house books in the reign of Charles II. an addition of forty per cent. may be made to them to have the real value.

millions sterling; and the principal import is raw cotton and tobacco, the former to the amount of 200,000 bags.—See page 178.

To the West India Islands Great Britain exports manufactures for the whites and negroes, salt provisions, salt fish, butter, cheese, &c.

The trade with the West Indies stood as follows in 1802.

Imports from British Islands ..	£6,944,142
Conquered Colonies	3,460,868
Foreign West Indies	352,278
Total official value..	£10,697,288
Exports of British produce and manufacture	£3,485,801
Irish produce and manufacture	196,949
Foreign merchandize	133,389
	£3,816,139

The proportion of the West India trade possessed by different parts of the United Kingdoms may be judged of from the following abstract of the vessels entered in 1804.

Great Britain.

Ports.	Ships.	Tons.
London	326.....	104,312
Liverpool, Bristol, Lancaster	188.....	52,009
Glasgow and Greenock	84.....	17,932
	598	172,253

Ireland.

Ports.	Ships.	Tons.
Dublin.. { Irish ..... 12 / British .... 17 }	.....	6,526
Cork.... { Irish ..... 10 / British .... 8 }	.....	2,403
Belfast, Irish	3	610
Waterford, Irish.....	2	142
	52	9,681

As we have already noticed the progressive import and consumption of tea, that of sugar is also given as its natural companion.

Years.	Import. *Cwt.*	Export. *Cwt*	Consumed. *Cwt*	Revenue.	Duty per cwt £ s. d.
1771,	1,425,874..	179,404..	1,246,470..	416,111..	0 6 7
1787,	1,926,791..	199,298..	1,727,493..	988,513..	0 12 4
1804,	8,248,726..	1,090,090..	2,158,636..	2,422,669..	1 7 0

The East-India Company also import, of late years, from fifty to 100,000 cwt. of Bengal sugar. Of the quantity consumed in the United Kingdoms, the proportion is thirteen for England and one for Ireland.

The increase of the import of rum has been as follows.

Years.	Import. *Galls.*	Export. *Galls.*	Home Cons. *Galls.*	Revenue.	Duty. s. d.
1771,	2,611,469..	1,311,130..	1,300,339..	482,000..	7 0
1787,	2,309,244..	1,467,990..	841,254..	230,281..	4 1
1804,	2,785,316..	1,160,846..	1,644,470..	1,543,993..	11 2¾

The import of rum to Ireland in 1804, was but 163,466 gallons, and the home consumption 66,000 gallons.

The

The import of coffee between 1802 and 1804 averaged.

	Import cwt.	Exported.	Home cons.	Revenue.
Great Britain	200,782	193,445	7,337	94,383
Ireland	2,232	—	2,232	

The import of cotton from the West-Indies varies greatly, the average between 1802 and 1803: was

Great Britain ..... lbs. 10,224,085
Ireland..... 248,933

It is entirely consumed in manufactures in the country.

The direct trade between Great Britain and Portuguese and Spanish America is so unfixed and trifling, that it offers no data for a general result.

PUBLIC TRADING COMPANIES.

We have already detailed the rise and progress of the East-India Company to that period when it began to lay the foundation of its territorial domination in Asia. Since that epoch to the present time, the Company's affairs have been the subject of parliamentary interference, and various regulations have been enacted. In 1773, the stock to qualify for a vote in the assembly of the proprietors, was raised from £500 to £1,000, and £2,000 was made the qualification for a director, and at the same time the nomination of the governor general and council of Bengal were vested in the Crown.

In

In 1784, a Board of Controul for the Affairs of India was established by act of Parliament, consisting of six members nominated by the Crown, to which was given the superintendance of the civil, military, and financial concerns of the Company in India, but which was not to interfere in their mercantile transactions.

In 1786, the Company were empowered to increase their capital to four millions, and in 1793 to five millions. In this latter year the charter was renewed for twenty years, on condition of paying £500,000 a year to government instead of £400,000.

At the expiration of the last charter in 1814, the legislature deemed it expedient to admit other persons besides the Company to a participation in the trade, under certain regulations; the trade to China being still exclusively vested in the Company. The principal regulations and restrictions are:—1. That no private vessel under 350 tons shall be employed in this trade. 2. Vessels in private trade may not proceed to any place between the Indus and Malacca, or to any of the islands within the Company's dominions, without a licence from the Company, and such vessels can proceed only to Bombay, Madras, Calcutta, and Prince of Wales's Island. To proceed to any intermediate places, a special licence from the Court of Directors must be procured. 3. No vessel in private trade may proceed to any place north of 11° S. between 64° and 150° of E. longitude, without a license from the Board of Controul.

The

The ports at present declared fit by order in council are London, Liverpool, Bristol, and Hull.

The affairs of the Company are immediately under the superintendance of twenty-four directors, chosen by the general assembly of the proprietors by ballot, of whom six go out every year, so that the whole court is renewed every fourth year. The directors choose a chairman and deputy chairman, and form themselves into committees for the various branches of affairs.

The East-India Company's marine service by no means offers a prospect of rapid advancement or fortune, even with the advantage of the greatest interest. It is necessary to enter very young into the service, and go correctly through the progressive steps to arrive at the command of a ship, which under the most favourable circumstances, is seldom arrived at in less than ten or fifteen years, and then not without the payment of £5,000 to £10,000. Having attained a command, the advantages are, the privilege of investments out and home; the occasional trade from port to port in India, and the passengers. The profits of a voyage of course vary with the capital employed, with the state of the markets in India, and with the number and rank of the passengers. A good voyage to Bombay and China, which is generally the most profitable, affords to the commander from £8,000 to £10,000.

The East-India Company finding it more economical to hire ships than to build them, all the vessels in their employ, with the exception of one

or

or two, are chartered from private ship owners, who engage them to run a certain number of voyages, and by whom they are equipped, victualled, and manned.

The only other joint stock company of England is that of Hudson's Bay, established as we have already seen in 1670.* The original stock of this company was but £10,500, divided into £100 shares; but it has been increased at different periods, and is now thought to be about £110,000. The proprietors are very few (probably not above fifty or sixty) and their affairs are managed by a governor, deputy governor, and seven members. The expenses of their factories and forts are supposed to exceed £20,000 annually.† It is however necessary to state that the circumstances or speculations of this company are never made known to the public, and it has been written against by several persons as highly prejudicial to the Hudson's Bay commerce.

The general outlines of the history of the African Company having been already given, it only remains to notice here, that the present association, styled the "Company of Merchants trading to Africa," established in 1750, is forbidden to trade

* Page 84.

† The chief expense is the salary to the officers and wages of the men in the bay. The governors of the factories are only kept in office from three to five years, and have £150 per annum, with a per centage on the skins collected. The deputy governor, surgeon, and master of the trading sloop form a council. The other servants are writers at £15 to £20 a year, and servants chiefly from the Zetland Islands at £6. Provisions are supplied to the whole.

trade in a corporate capacity, to have any joint or transferrable stock, or to borrow money under the common seal. Every person is entitled to become free of the company on payment of forty shillings, which is applied to the defraying of salaries and other expenses in England.

For the proper application of the sums voted by Parliament for the forts on the coast of Africa, the company is accountable to the Cursitor Baron of the Exchequer and to Parliament. The company is managed by nine directors chosen annually, three for Bristol, three for London, and three for Liverpool.

The Russia Company, established in 1566 on the discovery of Archangel, is, like that of the African Company, prohibited from trading with a joint stock, and the fine for entrance is five pounds. The company is under the direction of a governor, four consuls, and assistants.

The Eastland and Hamburg Companies exist only in name. The latter was first established in 1296, whence it is the oldest trading establishment in England. The Eastland Company, which grew out of it, received its charter in 1579.

The Turkey, or Levant Company, received its first charter from Elizabeth in 1581, and was at first exclusive; at present every person has a right to admittance on payment of £20. All persons free of the company may separately or jointly trade between the British Islands and the seas of the Levant.

The company is under the management of a governor, deputy governor, and fifteen directors. They recommend the ambassador for the Porte to the crown, and appoint consuls at Constantinople and Smyrna. The ambassador, consuls, and their chief attendants, receive certain pensions or salaries from the company. These and other charges are defrayed by duties levied by their bye-laws on the exports and imports of their members; but these being insufficient, the company has been frequently obliged to solicit the aid of Parliament. It is a very general opinion of commercial writers that this company is useless, and that the trade of the Levant would be more extensive and advantageous to the country if it was laid entirely open.

The South Sea Company had its origin in the inability of the country to defray the expenses of the war with France in the reign of Queen Anne, in consequence of which a debt was contracted of nine millions and a half for the service of the navy. In order to satisfy the creditors, it was proposed to pay them six per cent. interest on the debt, and to incorporate them into a company to trade to the southern seas; they accordingly received a charter in 1710, by the title of "The Governor and Company of Merchants of Great Britain trading to the South Seas," and which invested them with the exclusive privilege of trading from the river Orinoco round Cape Horn to the north-west point of America, Brasil and Surinam excepted, which were left free to all the subjects

subjects of Great Britain. The only trade ever engaged in by this company was that of supplying the Spanish colonies with slaves, &c. by the Assiento contract; and since its suppression they have carried on no commerce but that of the stocks, though vessels trading to the places within the limits of their charter are obliged to have licenses from them.

England has consuls general and consuls at the following places: —

Baltic. Stockholm, Con. Gen.	Portugal. Lisbon, Con. Gen.
Petersburg	Oporto, Con.
Konigsburg, Cons.	Faro,
Holland, Con. Gen.	Azores,
Antwerp, Con.	Madeira.
France. Bordeaux, Con.	Mediterranean. Turkey, Con. Gen.
Havre,	Smyrna, Con.
Nantes.	Egypt,
Spain. Barcelona, Con.	Aleppo,
Alicant,	Algiers, Con. Gen.
Valencia,	Iceland, Con.
Malaga,	America. New York, Con Gen.
Biscay,	New London, Con.
Balearic Islands.	Buenos Ayres,
	Brasil, Con. Gen.

MARITIME AND COMMERCIAL REGULATIONS AND ESTABLISHMENTS.

The mere enumeration of the Acts of Parliament in force, to protect and encourage com-

merce and navigation, would carry us far beyond our limits; and moreover, as many of them are only interesting to the parties concerned, we shall be excused for passing them by. The laws to prevent smuggling are chiefly directed to the build and rig of vessels, in order to prevent their outsailing the King's and custom-house vessels.

The performance of quarantine is regulated by specific Acts of Parliament, and any contraventions of the law are made capital felonies.

The ancient barbarous regulations respecting wrecks, have been in general abrogated. By the old statute law, no vessel coming on shore, from which a human being, dog or cat shall escape alive to the shore, shall be deemed wreck, but shall be restored to the owner, if claimed within a year and day, after which the property devolves to the King, or other persons possessing the feudal rights. To constitute a wreck, it is necessary that the vessel or goods should come on shore; for those that continue at sea are designated by the barbarous terms, *jetsam*, *flotsam* and *lagan*. *Jetsam* are goods thrown overboard, and which sink to the bottom; *flotsam*, where they continue to float on the surface; and *lagan*, where they are sunk but with a buoy to them. By the Acts of Parliament now in force, all wrecks not claimed within the period of a year and day are to be sold, and the proceeds placed in the Exchequer for the claimants. The sheriffs and other civil officers are bound to summons persons to assist in saving wrecks; and no persons,

persons, but those directed by the magistrates, if any are on the spot, are to enter a stranded vessel. The carrying off goods from a wreck, beating or ill using the persons wrecked, preventing their escape, or shewing false lights to lead ships into danger, is felony. The necessity of such laws does not argue much in praise of the inhabitants of our coasts; and indeed the people of Cornwall, and of some of the coasts of Ireland, were, until very recently, almost as great barbarians, in this respect, as the most savage people.

Light-houses being of the greatest utility, to the coasting trade in particular, they have been multiplied on all the coasts of the British islands, and their construction successively improved, until nothing is left to wish for. At first they were coal, or wood fires, entirely exposed to the weather, and consequently very defective. Towers, with glass casements, were afterwards erected, but the smoke of the fuel soon dimmed the windows and rendered them almost useless. At length, in 1763, oil lamps and reflectors were introduced, which have been brought to the highest perfection.

The light-houses and buoys on shoals are generally under the inspection of the Trinity-House of London, a corporation established in the reign of Henry VIII. by the title of "The Master, Warden, and Jurats of the Guild, of the most glorious and undivided Trinity of St. Clement and of Deptford Strond." The Thames river pilots are also within the supervisorship of this

corporation, The Dover and Deal pilots form two chartered corporations.

The light-houses on the coasts of the British islands are as follows;

South Coast.

Longships.
Lizard, two lights.
Eddystone.
Portland, two lights.
Needles, Isle of Wight.
Hurst Castle.
Owers, floating.
Dengeness.
South Foreland, two lights.
Goodwin Sands, two floating lights, horizontal,
Gull Stream, floating.
Ramsgate Pier.
North Foreland.
Galloper Sand, floating, two lights.
Sunk floating light, entrance of the Thames.
Nore floating light.

East Coast.

Harwich, two lights.
Orford Ness, two lights.

East Coast.

Newarp Sand, floating.
Lowestoff, two lights.
Wintertonness.
Haseborough, two lights.
Cromer revolving light, shews a face a minute.
Lynn.
Dudgeon, floating.
Hunstanton.
Spurnhead, two lights.
Flamborough Head, revolving light, shews a face every two minutes.
Humber, two lights.
Sunderland Pier.
Tinmouth revolving light every minute.
Fern Island.
Isle of May. } *Frith of Forth.*
Inch Keith. } *Frith of Forth.*
Pettycur Harbour. } *Frith of Forth.*
Tay River, two lights.
Bell Rock.
Kinnaird's Head.

Pentland

East Coast.

Pentland Skerries, two lights.
North Ronaldsay Island.

West Coast.

Ilfracomb.
Fatholm Island, Severn.
Mumbles Head.
Milford, two lights.
Smalls.
South Stack, Holyhead.
Skerries.
Anglesea.
Point of Air, two lights.
Sea lights, two } *Liverpool.*
Lake lights, two. }
St. Bee's Head.
Walney I. revolving light.

West Coast.

Port Patrick, from 1st September to 1st of May.
Cumbray Island, Clyde.
Pladda Island, Arran.
Mull of Kintyre.
Glash Island, Hebrides.
St. Agnes, Scilly.
Caskets, Guernsey.
Isle of Man, Point of Air.
—— Douglas, from August to April.

Ireland.

Old Head of Kinsale.
Waterford.
Wicklow.
Dublin, Pigeon House.
——— Howth Head.
Balligan.
Donaghadee.
Copland Island, Belfast.
Loophead, Shannon.

HOME FISHERIES.

The home fisheries of Great Britain form a considerable branch of national industry, and are also one of the chief nurseries of seamen, and hence they have been always protected and encouraged by the legislature.* They are, nevertheless,

* A British society for the encouragement of the fishery was incorporated the 26 Geo. III. and in 1810 a society for the encouragement

theless, far from being carried to the extent they are susceptible of.

The herring fishery, which furnishes the greatest object of foreign export, is chiefly carried on from the eastern and northern parts of the island, and to the greatest extent from Yarmouth and the neighbouring places. The boats or smacks employed in it are decked, and from forty to fifty tons, with six fishermen and twelve labourers, called *capstern men*, to each, and each boat has eighty to 100 nets, which are replaced by new ones in the middle of the season, which is from the twenty-first of September to the twenty-fifth of November. The fishing ground extends from ten leagues north of Yarmouth, to the South Foreland, and from ten to fifteen leagues from the coast. Each vessel has a well into which the fish are thrown from the nets, the bottom of the well being full of holes, to let the blood and wet drain off, and on each side of the well is an apartment, named the wing, into which the herrings are thrown from the well with scoops, while a man at the same time throws in salt, by which they are preserved till the vessel has got her lading of ten or twelve last, which is sometimes two or three days. She then returns to Yarmouth.

of the home fisheries was established, whose capital is £500,000, in 5,000 shares. The encouragements offered by government are bounties on the tonnage employed and on the quantities of fish cured; premiums for the greatest quantity of fish taken; the materials for the fishing duty free, and a bounty on exportation; a prohibition of the importation of foreign fish; and finally, certain privileges to the fishermen.

Yarmouth and lands her cargo to be cured. The process of which is as follows: for white herrings, the fish after being gutted, are rubbed thoroughly with salt, and left to drain for a night, when they are packed in barrels, with a layer of salt between every layer of fish. A barrel contains 1,500 herrings, and sells in the market for thirty to thirty-five shillings, the expense to the curer being about fifteen shillings, one last of salt being used for three of herrings.

The fish designed for red herrings are piled up with a layer of salt and fish alternately, and left to drain for some days; they are then washed and fixed by the mouths to rods, and hung up in extensive houses constructed for the purpose, where they are subjected to the constant smoke of roots of oak for four or five weeks.

The Yarmouth herring fishery has been latterly considerably on the decline, the number of vessels, which was once 200, being reduced to fifty. It still, however, gives occupation to 2,000 fishermen and 4,000 other persons. The proportionate share of the other ports in this fishery are, Lowestoffe, forty boats; Whitby and Scarborough, together fifty.* The total sale value of the fish taken in a good season, may be estimated at £100,000.

In the summer, from the end of May to the end of June, the Norfolk fishermen employ themselves

* This number is made up from the different parts of Yorkshire. Staith's sends fifteen; Filey, eight; Runswick, five; Robin Hood Bay, five; Flamborough, four; and Scarborough, three.

selves in the mackarel fishery, which has afforded in one season £10,000 to those of Lowestoffe, which, allowing the proportion to be one-third, supposes a total value of £30,000 for this branch of the fishery.

Large quantities of herrings are also taken at the mouth of the Thames, by smacks of London, Sandwich, Dover, Folkstone, &c. which chiefly supply the London market.

The second considerable herring fishery is in the Bristol Channel, in November and December. The chief rendezvous was formerly Porlock and Minehead, and three to 4,000 barrels of fish were annually exported to the Mediterranean, but we believe the fishery has greatly declined.

A very extensive herring fishery is carried on from the Isle of Man, employing 400 decked boats of six to ten tons, and six men each. The fishery commences at Peel, Castletown, and Port Iron, in the middle of July, and lasts six weeks. About the middle of August the fish arrive off Douglas, and the fishery lasts there till the middle of September. The amount of this fishery is very considerable, though we have no other data to calculate it on, than that the value of the fish taken in a single night has been sometimes £5,000, estimating the fish at the medium rate of two shillings the hundred.

The whole coasts of Scotland, in both seas, offer a vast practicable extension of the herring fishery, but until very lately it was totally neglected as an object of national industry, and the Dutch

Dutch alone visited these coasts for this purpose. Latterly, however, a spirit of enterprize has awaked, and a very considerable fishing establishment has been formed at Wyck. It employs 550 vessels and boats, with 2,750 men and boys, besides 150 vessels of the average burden of fifty tons, employed in conveying the materials for the fishery to Wyck, or taking off the produce, which has amounted in one year to 50,000 barrels, worth £80,000, at the average price of thirty-two shillings the barrel.

Fish are extremely abundant in the Frith of Forth, but the fishery is only carried on here by open boats close to the shore, and solely for home consumption.

A considerable herring fishery is also carried on on the west coast of Scotland, chiefly from Loch Fyne, Loch Ryan, and Cambletown, in Kintyre. The season at Loch Fyne is from July to January, and it employs 600 boats, with four men in each. The annual produce is estimated at from twenty to £30,000.

The fishery of Cambletown is carried on by busses, collected from the neighbouring places, as at Yarmouth, and chiefly from the Frith of Clyde. They quit the port the 12th of September, and return to their respective homes the 13th of January.

There is also a productive herring fishery off the promontory of Caernarvon, the produce of which is salted, and sold chiefly to the Irish, who come from the opposite coast for it. This coast also affords

affords great quantities of john dory, smelts, and small lobsters.

In 1798 the official amount of the herring fishery was as follows:

Vessels.	*Tons.*	*Men.*
1,090.....	39,452.....	5,824

Barrels of Herrings cured.	*Barrels White Herrings exported.*	*Barrels Red Herrings exported.*
136,419.....	142,799	3,556

The fishery next in value to that of herrings, as affording an object of external commerce, is the pilchard. It is only carried on from Cornwall and Devon; the fish arrives on these coasts in vast scools in the middle of July, and are taken in large seines, each managed by three open boats and eighteen men; the approach of the scools is watched for by a man in the heights, who is termed a *huer*. The fish are salted and packed in barrels; in which they are pressed down hard, to extract a portion of the oil, which runs through a hole in the bottom of the barrel. Between 1747 and 1756 the annual export of pilchards from the four ports of Fowey, Falmouth, Penzance, and St. Ives, was near 30,000 hogsheads, each worth thirty-three shillings, making the whole value near £50,000. In St. Ives's Bay, in 1767, 7,000 hogsheads were at one moment enclosed in the nets, each hogshead containing 350,000 fish.*

The

* Previous to the war the average export of pilchards from Fowey alone exceeded 60,000 hogsheads, chiefly to Italy; but since 1800 the greatest export was 20,000, and from 1807 to 1811 it was reduced almost to a cypher. Latterly some has been sent to the West-Indies, but the greatest part taken, after extracting the oil, is thrown on the land for manure.

The mackarel is the third periodical fishery, these fish arriving in great scools in the English channel from April to July; they aretaken either with lines or nets, the latter generally at night. The chief fishery is from Torbay, which has three to 400 decked boats, with one man and three boys to each, besides 100 open boats. The decked boats quit the bay in the beginning of spring, and sail in divisions to the different stations on the coast, on both sides of the Land's End. A small quantity of mackarel only is exported salted, almost the whole being consumed fresh in London, Liverpool, Bristol, Exeter, and other large towns.

Formerly a great mackarel fishery was also carried on from the ports of Dorsetshire, between Bridport and Portland, and thirty to 40,000 fish were no uncommon haul in one net, so that they were sold for a penny the hundred. This fishery has, however, latterly been unproductive. We have already noticed the mackarel fishery on the east coast.

The fourth branch of the general fisheries is called the white fishery, which includes all the species of the gadus (cod, hake, ling, haddock, coal fish, whiting), and flat fish, as turbot, soles, plaice, and skaites. These fish are taken on all the coasts of Great Britain, but the greatest fisheries are in the British or North Sea, and among the Hebrides and Zetland Islands. The produce of the former is chiefly consumed in London,* as is

* A large quantity of ling is taken off the coast of Norfolk, and salted for export.

is the cod taken among the Orkney Islands, which is powdered with salt to preserve it.

There is a great turbot fishery from Scarborough in the boats called cobles. These fish are taken with lines, to which 2,500 hooks are fixed at the distance of six feet, and which are sunk by great stones; they are laid across the current, and remain down for six hous.

Until about the beginning of the eighteenth century the Dutch visited the Zetland islands every year in the month of May, and supplied the inhabitants with the implements of fishing, taking their wet fish in exchange; from this period, however, the proprietors of the soil have generally supplied their tenants, and taken the fresh produce of their fishery at a fixed price. The fishing season commences the 20th of May, and terminates the 12th August. The boats employed in it are yawls, imported in boards from Norway, and set up in the islands; each has six men. The lines sometimes extend seven miles, with hooks at the intervals of five fathoms. In 1809 the fishery employed 459 boats and 2,754 men. The average export of cured fish is 1,010 tons (the seven-eights is ling, the remainder cod, tusk, coal fish and herrings), besides fish oil; the total value of these objects is about £25,000.

The white fishery of the N.W. coast of Scotland is carried on from the Solway Frith to Iceland; the great fishing banks are, however, between the Western Hebrides and the Main, which abound in every species of white fish.

The

The most universal fish of the British Seas is the whiting, which frequents our coasts in large shoals, particularly during the spring; they generally keep within half a mile of the shore, and are taken with the line.

The other species of sea fish brought to market are red mullet, taken chiefly on the west coasts; john dory, taken in great quantities off the Land's End, but seldom met east of Plymouth; conger eels, chiefly on the west coast, and weighing sixty to 120lbs.

Basking sharks are sometimes taken among the Orkney and Zetland Islands for their livers, which afford six to eight barrels of oil, worth £20. Seals are also killed by the Zetlanders, and people of the north of Scotland, for their skins and oil. A considerable number of dog-fish are usually taken in the herring nets, and from their livers the oil is extracted, and their flesh dried is eaten by the poor. A number of small whales are embayed every year in the sounds of Zetland and killed, the captors receiving one-third of the produce and the lord of the isles two-thirds.

The oyster fishery is a valuable branch of national industry, though the produce is almost entirely consumed in the country. The most celebrated fisheries are in the Swales of the Medway, Colchester, Faversham, the coast of Hampshire, about Portsmouth, Southampton, and the Isle of Wight, and near Tenby in Wales.

The oyster banks are all the property of certain bodies and freemen, and their preservation and the perpetuation

perpetuation of the fish are secured by acts of parliament.

The Dutch formerly took off three or £4,000 worth of oysters annually from Faversham and Milton; the native oysters of these places being very inadequate to the demand, the spath* is brought from other parts, even from the coasts of Scotland and France, and laid down in the Swale.

The principal oyster fishery of Scotland is from Preston Pans, in the Frith of Forth, which formerly supplied London with oysters for £25,000 a year, but the beds have been greatly exhausted, and this trade has entirely ceased.

The lobster fishery is also a valuable branch of industry. These fish are most abundant among the Orkney Islands, in the Frith of Forth, on the coast of Northumberland, and on the coast of the channel. A London Company at present carries on the fishery at the Orkneys, in which are employed a number of smacks with wells, that convey the fish alive to London weekly; 100 boats with ten men in each are employed in taking the fish with nets, and though the Company pay but

* The spawn of the oyster, called *spath*, is cast in May, and about Midsummer and Michaelmas; the stones, pieces of wood, dead shells, or other objects to which it adheres at the bottom of the sea, are called *cultch*. It is conjectured that the shell begins to form in twenty-four hours after the spath is cast. After the casting the fish become sick, and do not recover till August. When the oysters are taken the small brood is separated from the cultch, which latter is again thrown into the sea. The small oysters thus collected are spread on places called beds or layers, near the banks of the rivers, where in two years they become oysters of a legal size, and are then removed from the beds to the pits cut in the marshes, where they fatten for sale.

but 2d. the piece, the annual value is £10,000, which supposes 1,200,000 pieces to be taken.

The lobster fishery is regulated by act of parliament, which prohibits the taking any fish under eight inches length on the coasts of Scotland, between the 1st of June and 1st of September.

Of the river fisheries that of salmon alone affords an object of external commerce, and is carried to a greater extent than in any other part of Europe. In general it begins the first of June, and terminates in September, though some rivers afford this fish all the year. The most considerable fishery is in the Tweed, where it commences the 10th of January, and ends the 10th of October. There are forty-one considerable fishing establishments on this river, besides others of less note, and the whole fishery is rented for £10,000. The number of boats employed are seventy, with 300 men. The produce is subject to considerable variations, 700 fish having been taken in one *sweep*, and at other times not one.

The salmon is either sent fresh to London (in the summer in boxes packed with ice), or boiled, pickled, and packed in *kits*. A great quantity is also salted wet for export foreign, and some is salted and smoked, and named *klipper*.

Most of the rivers of Scotland, as well as the Tweed, abound with salmon, particularly the Forth, the Tay, the Spey, the Ness, the Don, the Dee, the Findhorn, the Devron, &c. The most considerable fishery next to that of Berwick is in the Dee, where the season is from the 30th

November to the 8th September; a great quantity is exported salted in barrels of 250 lbs.

Many of the rivers of England have also productive salmon fisheries, particularly the Thames, Medway, Tamar, Ex, Dart, Tavy, the produce of which is sent to London and Bath.

It is forbidden by act of parliament to take salmon less than six pounds weight, and the fishing periods are also regulated according to the time of the fish spawning. In the Thames and Medway none are to be taken between the 24th August and the 11th November.

FOREIGN FISHERIES.

The foreign fisheries of Great-Britain are those of Newfoundland, Greenland, and Southern whale. Shortly after the discovery of America, the Danes, Norwegians, French, Biscayans, and Portuguese, had vessels employed fishing on the banks of Newfoundland; but it was not until a century later, that the English engaged in this branch of national industry, and the first beginnings were on a comparatively small scale, for in 1578, when the English had fifty vessels employed, the Spaniards had 100 or 6,000 tons; the French 150 vessels or 7,000 tons; and the Portuguese fifty vessels or 3,000 tons.

The encouragement afforded to the fishery by the legislature caused its rapid increase, and in 1615, 250 English vessels or 15,000 tons were employed in it, and the growing superiority of the British marine gradually led to the exclusion of all other

other nations. In 1588, Drake captured all the Spanish vessels employed in the fishery; and that nation never returned to it, and by the peace of 1763 renounced the right to do so.

Though France and the United States have the privilege of fishing on the banks, the possession of Newfoundland and the coasts of the Gulf of St. Lawrence secures to England a vast preponderancy in the fishery, and by her the south of Europe and the West-Indies are almost entirely supplied.

The number of vessels sent from England to the fishery, varies according to peace or war. Of late years in peace, the average number employed in the business of the fishery is 400 of 36,000 tons, besides 2,000 fishing shallops of 20,000 tons; the average quantity of fish taken is 600,000 cwt. which together with the salmon, cod, seal oil and seal skins, is valued at above half a million sterling. Of 20,000 men employed in the fishery, about 8,000 remain in Newfoundland during the winter to repair the stages, &c.

It is not a little singular that a nation of *heretics* should supply almost all the Catholic world with the means of complying with their religious institutions; and still more so, that the salt necessary for this purpose is principally received from these nations. Spain alone receives from the English salt cod to the value of £700,000 a year.

The following statements will shew the extent

of the Newfoundland fishery since the American war :—

1788.	Vessels.	Tons.	Men.	Quintals of Fish cured.	Tons of Train Oil.	Tierces Seal Oil and soon.	Skins.
British fishing vessels	236	22,535	5,790	447,316	2,146	725	23,382
—— sack vessels	60	6,297	547				
—— colony vessels	50	4,202	435				
Bye boats	344	—	2,606				
Boats of the inhabitants	1,068	—	—				
1792.							
British fishing vessels	276	18,838	6,607	551,396	2,365	4,598	11,920
—— sack vessels	161	21,275	1,319				
—— colony vessels	57	6,250	327				
Bye boats, Boats of the inhabitants	1,997	—	7,138				

The quantities of fish exported from Newfoundland were :—

1792.	Quintals dried Fish.	1800.	Quintals cured Fish.
South of Europe	490,514	.. .. ..	366,379
Ireland	13,209	.. ..	1,537
West-Indies ..	42,118	.. .. ..	97,295
Great-Britain ..	19,716	.. ..	7,526
		Various places	10,000
Total	565,557	.. ..	482,737

The encouragement granted by the legislature to the Newfoundland fishery, is a bounty to the vessels who first arrive at Newfoundland with full cargoes of fish from the banks.

Having already noticed the Greenland whale fishery, we have here only to state its results of late years :—

Years.	Ships.	Years.	Ships.	Years.	Ships.
1750	20	1775	105	1788	247
1772	59	1783	51	1797	65
1773	65	1784	96	1800	62
1774	65	1785	153	1811	109

The whole extent of this fishery may be calculated from the share that Hull has in it.

Year.	Ships.	Whales.	Seals.	Unicorns.	Bears.	Sea-horses.	Tons Oil.
1806	37	239	1,804	10	3	6	3,382
1808	27	467	552	13	4	2	4,330
1810	34	449	1,238	8	13	–	4,912
1811	42	552	993	2	2	–	4,782

The public encouragements of the Greenland fishery are a bounty on tonnage employed, importation of the produce duty free, and protection to the seamen from impress.

The southern whale fishery is of recent origin, the first speculation being in 1775. Of late years forty to sixty vessels have been thus employed, and in 1809, the imported produce of the fishery was as follows:—

3,404 tons of sperm. oil	£376,000
966 —— of whale oil.....	
160 cwt. of whalebone	320
41,365 seal skins.....	12,409
960 oz. of ambergris	624
	389,353

In 1810 the total value of the objects imported from the two whale fisheries was £566,967.

The encouragement to the southern whale fishery consists of premiums for the greatest quan-

tity of produce imported, and freedom from impress to the persons employed in it.

NAVY.

From her insular situation the natural defence of Great-Britain is in a naval force, which is equally necessary to secure her coasts from invasion, and to protect her commerce.

The history of the progress of the English navy may be divided into three periods; the first comprehending the period previous to the reign of Henry VIII; the second ending with the restoration; and the last from that epoch to the present time.

Though Cesar only notices particularly the boats of the Britons, formed of withies and covered with skins, in which they crossed the English and Irish channels in summer, it seems probable, that they had also vessels of a more stable construction, for he tells us, that the Veneti of the opposite coast of Gaul obtained auxiliaries from Britain against the Romans, and that the fleet of the Veneti and Britons which engaged that of the Romans off the coast of Armorica (Britany) consisted of 230 large and strong ships, which were totally destroyed by the Romans. This defeat sufficiently accounts for the Britons being unable to resist the invasion of the Romans next year by sea.

The Romans, while they remained masters of the

the island, kept up large fleets to protect the coasts and commerce, and the whole naval force was commanded by an officer stiled *Archigubernus Classis Britannicæ*, or High Admiral of the British fleet.

The Romans when they abandoned the island withdrew their ships, and those few which remained to the Britons fell an easy prey to the Frank and Saxon pirates, so that the island was again totally deprived of its natural defence.

The confusion of the heptarchy was not calculated to restore the naval power, and it was not until the reign of the great Alfred, that the British navy again resumed an existence. The first fleet, however, collected by this prince, consisted only of five or six ships with which he attacked and defeated six Danish pirates: encouraged by this success, he increased his fleets to 120 ships, which he distributed in proper stations round the island, where they were sure to meet the Danes, either in their approach or retreat, and generally were successful. A.D. 875.

The navy did not decline under the successors of Alfred, and Edgar, in particular, kept up a large naval force divided into three squadrons. Some English historians make the number of vessels amount to three or 4,000, but probably, as Mr. Henry observes, there is here an error of an added cypher. 947.

The weak successors of Edgar allowed the navy to decline, and the Danes again ravaged the coasts with impunity. In 1007, a fleet was raised by 1007.

requisition on the proprietors of land, of 300 vessels; but this force being either dispersed or destroyed, by the treachery and jealousy of its chiefs, the way was opened for the Danish conquest. During the period of this dominion, there being no foreign enemies to resist, both the naval and military force of the kingdom were neglected; and hence there was no adequate navy to resist
A.D. 1066 the invasion of William of Normandy, which was made in 3,000 vessels, many of which, however, were doubtless only open boats, for in the short passage across the channel several vessels were lost.

We have already noticed the establishment of the cinque ports, and their being obliged to furnish ships for the public service; this force consisted of fifty-seven ships, each with twenty-seven men and boys, and the following was the proportion furnished by each;—

Hastings and its members 21 } And each of the other three
Dover and its members . 21 } ports and their members 5.

This force long continued to be the only standing navy of England; and when necessary to increase it, ships were hired or pressed from the merchants, and armed by the crown.

The shipping of England, however, increased both in number and in size, from the epoch of the
A.D. 1190. Norman Conquest; and the fleet that conveyed Richard I. to the Holy Land is described, by cotemporary historians, as excelling every thing before seen in the number, magnitude, and beauty of the ships. It was composed of thirteen of the largest

largest class of vessels named *dromons*, 150 of the second class, called *busæ*, fifty-three row gallies, and a great number of tenders.

In the great battle between the English and French fleets, in the reign of John and Philip II. the English fleet consisted of 500 ships; and at this same epoch William of Malmesbury describes the English seamen as "excelling all others both in the art of navigation and in fighting." * Nevertheless the ships of war still continued of very small dimensions, the largest in 1304 carrying only forty men. A.D. 1213.

It is not therefore extraordinary that Henry III. should require 1,000 such vessels for his expedition to Gascony, nor that Edward III. should have 700 English vessels and thirty-eight foreign at the siege of Calais, the average crews of this fleet being but twenty men. In 1359, when Edward again invaded France with 1,100 vessels, it is probable this was the whole shipping of England pressed for the occasion into the king's service. A.D. 1254. A.D. 1346.

Henry IV. maintained the dominion of the narrow seas, and chastised the French and Flemings, who had presumed to insult the coasts, and interrupt 1390 | 1413 |

* An Idea may be formed of the stratagems then used in naval war by the following. In 1215, a French fleet bringing over a reinforcement for Prince Louis, appeared on the coast of Kent, where it was attacked by an English fleet under Philip d'Albiney, and was defeated with considerable loss. This victory is said to have been chiefly owing to a stratagem of the English commander, who gaining the wind of the French, bore down on them with impetuosity, and throwing in their faces a great quantity of quick lime, which he had purposely taken on board, so blinded them that they were disabled from defending themselves.

rupt the trade, and under his successors the navy lost nothing of its renown. Henry V. was victorious by sea and land, and seems to be the first
1414 } 1422 } prince who had any ships his own property. In his first invasion of France, he had "two large and beautiful ships, with *purple sails*, called the King's Chamber and King's Hall."

1422 } 1461 } The naval and military strength of England declined during the long and disastrous reign of Henry VI. and the French insulted the coasts and burned the town of Sandwich. The dominion of the narrow seas was however regained by the great Earl of Warwick, who was declared Lord High
1461 } 1483 } Admiral. Edward IV. paid great attention to the navy, and in 1475 invaded France with a large fleet. This prince had also several ships of his own, which he employed both in war and commerce on his own account.

1486. Henry VII. also attended to the navy, and though the kingdom enjoyed peace, a fleet was always kept ready to act. The first ship of war, in the proper sense of the term, expressly built for the public service, seems to have been in the reign of this prince, and was called the "Harry Grâce de Dieu:" she was 1,000 tons burden, cost £14,000, and was probably the first two decked ship, as well as the first with more than two masts, and she had four.

1500. The second period of our naval history commences with the reign of Henry VIII, when the sea service first became a distinct profession, and during which the Admiralty and Navy Boards, and

and the dock yards of Deptford, Woolwich, and Portsmouth were established. This prince also brought shipwrights from Italy to instruct his subjects in the art of construction, and the rules drawn up by his order for the civil regulation of the navy, form the basis of its present government. The ships belonging to the crown, however, still formed but a very insignificant portion of the naval force, at the death of Henry the royal tonnage being but 12,000. During the reign of his successor, Edward VI, it continued nearly stationary, the amount being at the death of this prince fifty-three king's ships, of which twenty-eight only were above eighty tons; and the total tonnage 11,000. During the unhappy reign of Mary, the fleet declined, and at her death consisted of but twenty-seven vessels, and 6,000 to 7,000 tons and 3,565 men. Its expenses at this epoch were estimated at £10,000 per annum. A.D. 1547. 1553. 1558.

Elizabeth, soon after she ascended the throne, began to increase the navy, both by the building of ships expressly for it, as well as by encouraging merchants to build large ships, proper on occasion to serve as ships of war; she also brought foreign ship builders into the kingdom, filled the arsenals with naval stores, cast iron and brass ordnance, manufactured gunpowder, and in short acquired the title of "The Restorer of Naval Power and the Sovereign of the Northern Seas." *

The

* It is equally amusing and instructive to trace the progress of ideas in the march of civilization. In the present state of our navy we cannot read without

1588. The greater part of the naval force, however, still continued to be hired on the spur of the occasion from merchants; and of the fleet that destroyed the Spanish armada,* consisting of 176 ships, 31,985 tons, and 15,000 men, there only belonged to the crown, thirty-four ships, 12,590 tons, and 6,279 men. The largest of these vessels was 1,100 tons, and mounted sixty or sixty-five guns.† At the 1603. death of Elizabeth the royal ships were forty-two, the tonnage 17,055, and 8,346 men, and the expense of the fleet had increased to £30,000 per annum.

The

without smiling the following observations of a cotemporary writer, "The Queen's highness hath at this present already made and furnished to the number of one and twenty great ships, which lie for the most part in Gillingham Road. Besides these her grace hath others in hand also. She hath likewise three notable galleys, with the sight whereof, and the rest of the navy royal, it is incredible to say how marvellously her grace is delighted. I add, to the end that all men should understand somewhat of the *great masses of treasure* daily employed upon our navy, how there are few merchant ships of the first and second sort, that being apparelled and made ready to sail, are not worthy *one thousand pounds* at the least, if they should presently be sold. What then shall we think of the navy royal, of which some one vessel is worth two of the other, as the shipwrights have often told me."—*Harrison's Description of Britain*, 1577.

* The Armada consisted of 130 ships, of which 100 were the largest ever constructed, though not exceeding our present sixty-four gun ships, twenty caravallas or smaller vessels also accompanied it. The English, aware of the unmanageableness of their great hulks, as well as of the incapacity of their crews, did not hesitate to attack them with their small craft, only taking care to avoid being boarded. To a complete defeat succeeded a storm, by which many of the vessels that escaped burning or capture were wrecked on the coast of Scotland and Ireland, and not one half the fleet returned to Spain.

† In the American war Liverpool alone sent more tonnage to sea in privateers, than the whole royal navy of England contained at this memorable epoch, the number of privateers being 120, the tonnage 30,787, guns 1,986, and men 8,754.

The defeat of the Spanish Armada transferred the sceptre of the sea to the Dutch, for France and England occupied solely by the humiliation of the House of Austria, considered without jealously the maritime superiority of the republic, and there being no occupation for a fleet during the peaceable reign of James I. the navy, though it was not neglected, was not much augmented; indeed the number of ships decreased, but their size was considerably increased, the fleet at the death of James being composed of thirty-two or three ships of near 20,000 tons. 1625.

The improvements in shape, the rigging, and furnishing ships that took place in the reigns of Elizabeth and James, are thus noticed by Sir Walter Raleigh. "In my own time the shape of our English ships hath been greatly bettered. It is not long since the striking of the topmast hath been devised. Together with the chain-pump, we have lately added the *bonnet* and *drabbler*. To the courses we have devised studding-sails, top-gallant-sails, sprit-sails, and top-sails.* The weighing of anchors by the capstan is also new."

Charles I. in the early part of his reign, paid considerable attention to the navy, particularly in the increase of size; and in 1637 was launched from Woolwich, the "Sovereign of the Seas," the first three-decker constructed in England;

* It is almost within our memory that royals and other small sails have been allowed to frigates and lesser ships.

land;* and in this reign ships were first classed in rates. At the breaking out of the Rebellion, the navy consisted of forty-two ships of 22,411 1688. tons. The civil wars which deluged the kingdom with blood, and brought her misguided monarch to the block, caused a temporary neglect of the navy, and it was also greatly reduced by Prince Rupert's carrying off twenty-five ships in 1648.

The energetic measures of Cromwell, however, soon not only replaced this loss, but in five years the navy was increased to 150 ships, of which more than the third were two and three deckers. The Dutch now feeling that to divide the empire of the seas was to lose it, opposed their maritime pretensions to those of the English, and continued to dispute this empire during a bloody war, which, though for some time indecisive, terminated in their being obliged to give up the contest, and sue for peace, which was granted on the express condition of their acknowledging the

* This ship was 128 feet keel, and forty-eight feet beam; length over all 232 feet. She had five lanthorns, the biggest of which would carry ten people upright, had three flush decks, a forecastle, half deck, quarter deck, and round-house. Her lower tier had thirty ports for cannon and demi-cannon.

Middle tier, thirty for culverins and demi-culverins.

Third tier, twenty-six for other ordnance.

Forecastle, twelve; and the two half decks had thirteen or fourteen more ports within board for murdering pieces, besides ten pieces of chase ordnance forward, and ten right aft, and many loopholes in the cabins for musquet shot. She had eleven anchors, one of 4,100 lb. She was of the burthen of 1,637 tons.

the superiority of the British flag in the British Seas.*

This war, which added to the number of the navy by captures from the enemy, also greatly improved the skill of the seamen. Hitherto the naval commanders were chiefly noblemen, but little acquainted with the profession, and who content with the honours of command, left the management of the vessels to the pilots. During the commonwealth, few nobles were found in the public service, and the ships of war were generally commanded by persons bred in the merchant service, who, however they might fall short in polished

* The sovereignty of the narrow seas claimed by England is of very ancient origin, the writers on this subject assuring us, that Edgar, the first Saxon king of all England, directed his sea officers to visit all ships navigating *his* seas, and to oblige them to salute his flag. The same observance was directed to be enforced by the ordinances of Hastings in the reign of John; and in that of Edward I. in consequence of an infringement of the rights of the British Seas by Philip I. of France, an assembly was held at London, composed of English judges, with deputies from Genoa, Spain, Germany, Holland, Denmark, Norway, and other commercial places, in which it was solemnly adjudged, that "the kings of England and their predecessors, *before the memory of man*, have had the supreme government of the English Seas, and of the islands thereof."

This sovereignty, in fact, was virtually acknowledged by all the countries of Europe, washed by these seas, in the licences they solicited for their subjects to fish on or traverse them. These licenses were constantly granted by all the Princes from Edward I. to Henry VI.; were also granted for a valuable consideration by Queen Mary I. to the Netherlanders; and the admirals of Henry IV. of France demanded permission of Elizabeth for Frenchmen to fish in *her* seas for soles *for the King's table*. In 1654, an article was inserted in the treaty of peace with Holland, that Dutch ships should strike their flag or topsail to English ships of war in the English Seas, as heretofore had been practiced; and in a subsequent treaty in 1673, the article is renewed, but for the term British Seas, is substituted "the Seas between Cape Finisterre and the middle point of the land Van Staten, in Norway."

polished education, were expert seamen. Cromwell raised the pay of seamen from nineteen to
1656. twenty-four shillings a month; and at his death the fleet consisted of three first rates of 100, eighty, and seventy guns; five second rates of sixty-six to fifty-two guns; four third rates of fifty-two to forty-four guns; eight fourth rates of forty to twenty-eight; ten fifth rates of thirty-four to sixteen; and nine sixth rates of sixteen to two.—Total 157 ships, 4,390 guns, and 21,910 men. The annual grant for the service of the fleet during the protectorate was £400,000.

1660. On the Restoration, the Duke of York was appointed to the post of Lord High Admiral, and by his knowledge of naval affairs, and his partiality to the service, the marine was considerably improved, and increased in efficient force by the greater size of the vessels. On the removal of this prince from the naval administration in 1673, the fleet was again neglected, and the profligate Charles dissipated the money voted for its support on his pleasures, so that on the Duke of York's being again placed at the head of the navy in 1684, only twenty-two ships were fit for sea, the rest being totally out of repair or rotten, and the arsenals empty of the materials for their refitting. The exertions of this prince after his resuming the administration, and also after his accession to the crown, being found incapable of restoring
1688. the fleet by the ordinary course, he suspended the navy board and created a commission of naval affairs, by whose exertions the fleet was soon restored

stored, and from a state of absolute impotency, the fleet at the Revolution consisted of 173 serviceable vessels of 101,892 tons, 6,903 guns, and 42,009 men. The arsenals were at the same time abundantly stored. 1688

William III. on being called to the throne, found himself obliged to declare war against France, whose fleet was now formidable, and to compete with it, it therefore became necessary to increase that of England. A number of line of battle ships were accordingly built, and at the close of the war, the navy was composed of 323 ships and vessels, of which five were three deckers. In 1700, half pay was established for the classes of commissioned officers. 1697.

Though during the reigns of Anne and George I. the number of vessels decreased, being built of larger dimensions, the tonnage considerably increased. At the death of the former the ships were 247, and the tonnage 167,219; and at the death of the latter, ships 233, and tonnage 170,862. 1714. 1717.

The wars with Spain and France during the reign of George II. necessitated an increased marine; and at the accession of the present king, the number of vessels was 412, and the tonnage 321,104. A.D. 1760.

Here we may close this short sketch of the rise and progress of the British navy; and refer the reader to the abstract at the end of the volume for the further increase in this long reign of more than half a century, during more than

than half of which England has had to contend with the maritime forces of the world.

The post-office and revenue services employ a considerable number of vessels. The packets belonging to the former are,

Between Dover and Calais three packets sail every day but Sunday.
——— Harwich and Holland, five packets.
——— ——— ——— Cruxhaven, four.
——— ——— ——— Gothenburg, four.
From Holyhead to Dublin, six packets, daily.
—— Milford to Waterford, six. . do. . do.
—— Port Patrick to Donaghadee, six do. . do.
—— Weymouth to Guernsey and Jersey, twice a week.
—— Falmouth to Lisbon, six packets, every Tuesday.
—— ——— to the Mediterranean, seven do. every third Tuesday.
—— ——— to North America, two do. first Wednesday in the month.
—— ——— Jamaica, five do.
—— ——— to the Leeward Islands, four do. third Wednesday in the month.
—— ——— to Surinam, four do. second Wednesday in the month.
—— ——— to Madeira and Brasil, seven do. first Tuesday in the month.

It might be suggested, now the temple of Janus is about to be shut, at the same time that the country will require a respectable, but also an economical peace establishment, that the placing the

the packets and revenue vessels on the naval establishment, would be a means of keeping alive that professional knowledge which may probably *grow rusty* by a long inactivity, as was greatly the case by the peace that intervened between the American and revolutionary wars.

The immense extent of the navy necessarily requires a number of naval establishments, for the relief of disabled seamen and the widows of officers.

Greenwich Hospital, the grand establishment of the former nature, has a revenue of upwards of £150,000, derived from the following sources:—

Sixpence per month of the pay of merchant seamen.

Sixpence per month from the pay of king's seamen.

Half-pay of officers holding appointments.

Duties of the North and South Foreland lights.

Income from real property.

Interest of upwards of one million in the stocks.

The expenses of the establishment in salaries, servants, repairs, &c. is £20,000. The remainder is expended in the support of disabled seamen in the hospital, and pensions for wounds, &c. to others.

The chest of Chatham was an establishment founded in 1590, by voluntary deduction of sixpence per month from the wages of petty officers and seamen in the king's service, for the purpose of forming a fund to grant pensions to disabled

seamen, and *smart money* for lesser wounds. The annual revenue was £75,000, when it was recently united to the Greenwich institution, making the whole revenue of this establishment considerably above £200,000. In Greenwich Hospital is also an institution for the support and education of 1,000 children of seamen of both sexes. There is also a naval charitable society, founded in 1791 by voluntary contribution of naval officers, for the relief of indigent widows and orphans of naval officers.

The establishment named "Naval Knights of Windsor," is founded on the bequest of a Mr. Travers in 1724, but did not take effect till 1809, owing to the legal objection of his heirs. A handsome set of houses was then built near Windsor Castle for seven lieutenants, who by Mr. Travers's will are to be single and without children, they are to dine together in a common mess room, and to receive sixty pounds a year each.

The rewards to officers wounded, are pensions for life; to the widows of officers, pensions from a fund arising from a stoppage on officers' pay.

The only establishments we know of for merchant seamen, are an hospital at Deptford under the Trinity House, for decayed pilots and masters of ships and their widows, and another at Newcastle.

The only public institution for naval education is at Portsmouth, where besides those who pay for their education, fifteen sons of naval officers are maintained

maintained gratis; and in 1810, twelve scholars in naval architecture were added to the academy, from whom are to be taken the officers of the building department of the Dock-yards.

IRELAND.

IRELAND is separated from GREAT-BRITAIN by the IRISH CHANNEL, also called ST. GEORGE'S CHANNEL, though this appellation is more particularly applied to the southern entrance, and that of the NORTH CHANNEL to the north entrance, the least breadth is between the Mull of Kintyre and Tor Head, sixteen miles.

Ireland has a circuit of 250 leagues of coast, and is so deeply indented, particularly on the west coast, where the whole force of the Atlantic bursts on it, that it reckons fourteen harbours for the largest ships, seventeen for frigates, and thirty-six for coasters, besides twenty-four good summer roads.

We shall commence our tour of the coasts with the province of Munster, and proceed by the south and east coasts to the north point of the island.

The coast of Clare county extends from Galway Bay to the Shannon, and though it has several bays, none of them form a good harbour. The Shannon, the first river of Ireland, rises in the county of Leitrim, passes through Loch Allen, after its issue from which it expands into the lochs Clare.

Eske,

Clare. Eske, Ree, and Derg, the latter eighteen miles long and four broad, from which it rolls a full and large stream to the sea, into which it empties itself by a great estuary fifty miles below Limerick, between the counties of Clare and Kerry, at Loop Head, or Cape Lean, on the former, and Ballyleah, or Kerry Head, on the latter, seven miles asunder. On Cape Lean is a light-house. The largest merchant ships can ascend to Limerick, and small craft to near Killaloe, at the entrance of Loch Allen, where it is crossed by a ledge of rocks.

Ascending the Clare side of the river we meet Kilrush, and CLARE the county town on the river of the same name, seven miles from its mouth receives only boats,

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Limerick. LIMERICK, on the left bank of the Shannon, and partly on an island, has 50,000 inhabitants, being the third city of Ireland. It exports provisions and corn, and has considerable manufactures of linen, woollen, and paper. Limerick was anciently the strongest fortification in Ireland, and has only been dismantled about forty years.

Kerry. On the coast of Kerry, south of the Shannon mouth, the first place is TRALEE, one mile from the mouth of the little river Leigh, which receives only fishing vessels, and is a poor place though the county town, having scarce any other business than the herring fishery. Near this part of the coast are many sand hills formed by the winds, and

and on some parts the sea gains rapidly. Other parts of this coast present the highest mountains of Ireland. The peninsula of Dingle, between Tralee and Castlemain, is of this last nature, and behind it rises Brandon Hill a noted mark 2,250 feet high. Many of the rocky cliffs that line the shore are worn into caverns. On the north side of the peninsula of Dingle, the harbour of Smeerwick affords anchorage sheltered from all winds but N. and N.W. Kerry.

Dunmore Head is the west point of the peninsula of Dingle, as well as of Europe. Off it are the Blasquet Islands, twelve in number, the largest of which (Inismore) is a great mountain three miles long and one broad. According to tradition it was anciently joined to the main; though the sound that now separates them is of vast depth, and the tides rush through it with great rapidity. The great island is the only one inhabited, but the others pasture cattle, and all are thickly stocked with rabbits. On the great island are seen the ruins of an ancient church.

Dingle Bay is a gulf six leagues deep and four wide; on its north shore are Ventry, a small town and good haven, and Dingle, which has a harbour for 100 ton vessels landlocked; it exports some butter and sheeting linen. Castlemain is a small town twelve miles up the Main river, which falls into the head of Dingle Bay; vessels of sixty tons only can cross the bar. Here are the ruins of an ancient castle, which still has a sinecure constable.

Kerry. Valentia Island, on the south shore of the entrance of Dingle Bay, is five miles long, and extremely fertile, forming the three good harbours of Valentia, Port Magee, and Cahir; the town on the latter is a poor place.

The Skellig Three Rocks lay S.W. of Valentia Island, and twelve miles from the main. That named the Great Skellig rises in two pyramids of naked grit-stone, united by a space of three acres of flat ground, on which are several cells, thought to have been chapels, this rock having been a celebrated place of pilgrimage since the time of St. Patrick; there was on it also an abbey of St. Austin, and numerous crosses still remain. The level part is covered with scurvy grass, and has two wells of slightly brackish water, several yards above the level of the sea. All these rocks are the rendezvous of migratory sea birds, but it is remarkable that the middle rock is alone resorted to by gannets.

Kenmare River is an inlet of the sea, ten leagues long and three broad at the entrance. It abounds in fish, lobsters, crabs, oysters, muscles, cockles, &c. and the numerous rocky islets in it are covered with seals. It has several good roads, but seldom visited, there being no place of consequence on it. Sneem Harbour is on the north shore, from which a creek for boats goes up to the village of Blandford.

Cork. Dursey Island, off the south point of the entrance of Kenmare, is four miles long and one broad;

broad; it is rocky and barren, and has but one spot where landing is practicable, even in fine weather.

Bantry Bay forms one of the most capacious and secure harbours of the world, being nine leagues long and two broad, and surrounded with stupendously high rocky shores, with few intervals of beach. Nearly in the middle is Bear Island, six miles long, rugged and barren, but forming between it and the north shore the harbour of Beerhaven, fit for the largest fleets. At the head of the bay is Whiddy Island, also forming an excellent harbour to Bantry, an insignificant town without trade. Whiddy Island is entirely occupied by a deer park, rabbit warren, and sheep pasture.

Dunmanus Bay is separated from that of Bantry by a peninsula, of which Sheep's Head is the extreme point. On the south point of the bay are the ruins of three castles, whence it is called Three Castle Head. Dunmanus is on the south shore, and at the head of the bay, five leagues from its entrance, is the little village and harbour named Four Mile Water.

Mizen Head, three miles S.E. of Three Castle Head, is the S.W. point of the main land of Ireland, and hence received the name of *Notum* from Ptolemy. East of it is Crook Haven, a fishing town, with a harbour for vessels of fifteen feet, having a depth of three fathoms at low water. Scull and Long Island Harbour, farther east, are also fit for vessels of burden. Roaring Water Bay has its

Cork. its name from a river that falls into it, and forms a good haven for vessels of fourteen feet.

Between Mizen Head and Baltimore are many islands, of which the most deserving notice is that of Clare, generally called Cape Clear Island, the southern land of Ireland; it is three miles long and one broad, and is inhabited by two or 300 families of fishermen in several hamlets. Hake is the staple produce of their fishery, which they salt and dry with particular success. On the south-west side of the island is a creek, into which a vessel may run in distress; and in the interior is a lake, the water of which has a soapy quality, and is used by the inhabitants to wash their flax. Between Cape Clear Island and the main is the island Inis Shircan, with the ruins of a castle and abbey; and three leagues west of Cape Clear is a dangerous rock called the Fastnet.

Baltimore is an insignificant town on a cove, which with Inis Shircan on the west forms an excellent land-locked harbour for vessels of nine feet. It is worthy of notice, that Baltimore was sacked by the Algerines in 1631, the remembrance of which is still in the minds of the people, and is one of the causes of the place not increasing. A creek for boats goes up from Baltimore haven to Skibbereen.

Castlehaven Harbour has fifteen feet depth at low water; to which succeed Glandore, a small haven formed by two islands; Ross Carberry, though the see of a bishop, is a poor village, with a haven only for small craft, being filled up with sand;

sand; Clonekilty is a small town, accessible only to boats of ten tons. Cork.

Court Machsherry Bay is between the Seven Heads on the west, and the old Head of Kinsale on the east; it is entirely open to the south, but at its head is the creek of Tinolegue, into which vessels of eight feet may run at half tide. The old Head of Kinsale is a high steep point, with a lighthouse.

Kinsale is a town of 10,000 inhabitants at the mouth of Bandon River, which is crossed by a bar with three fathoms and a half depth. This was formerly the only port of Ireland that had a depot of stores for king's ships, frigates being able to enter the harbour. The town is built round the foot of a hill, and, except the principal street which follows the curve of the hill, is composed of dirty narrow lanes and very old houses. On the opposite side of the river are the two well-built villages of Scilly and Cove. The harbour's mouth is defended by Charles' Fort, with a garrison of a regiment of infantry and by a block-house. Kinsale has a custom-house, and some foreign and coasting trade; it is also a sea-bathing place, and celebrated for its oysters. The river is navigable for boats to Inishannon.

Oyster Haven is a good harbour for small vessels drawing eight feet.

Cork Head and Poor Head (a steep high promontory) are the two points of a bay, in the middle of which is the entrance to Cork Harbour, one of the most capacious and secure of Ireland, opening

Cork. opening from an entrance about a mile wide to a fine basin, in which are three islands that break the force of the tides and winds, and render it more secure. Ships of war, and vessels only touching here, lay before the town of Cove, a mile from the shore, in six to nine fathoms; merchant ships of burden run up to Passage, four miles above Cove, and those of ten feet ascend to Cork with the tide, and lay at the quays.

The city of Cork, the second of the kingdom, is fifteen miles from the harbour's mouth, and is situated principally on several marshy islands, formed by the river Lee, which caused it to be formerly intersected by many canals, but most of which have been arched over and formed into streets, leaving only the two main branches of the river which surround the town.

The population of Cork is thought to amount to 100,000, and it has the privileges of a county. It is of very ancient foundation, being walled round by the Danes in the ninth century; a very few vestiges of these walls however remain, nor has this city a single street or square deserving of particular notice; some of the new streets are however regular, and the houses handsome, and the principal market is one of the most convenient of Europe.

The trade of Cork consists in the export of beef, pork, butter, tallow, candles, raw and tanned hides, calve skins (50,000), rabbit skins, wool and woollen yarn and linen. The export of beef has considerably decreased, the slaughter of cattle from

from 100,000 in the season between August and January being reduced to 20,000. It was Cwt.

	Beef.	Butter.
In 1745.....	100,000 barrels...	84,000 cwt.
In 1773.....	292,000.....	120,000
In 1806.....	.....	160,000.

The entrance of Cork Harbour is defended by a fort, mounting twenty twenty-four pounders and by several batteries. The town of Cove is on Long Island separated from the main by a channel, fit only for boats when the tide is in. The river Lee has a course of about fifty miles, and would be navigable for small craft ten miles above Cork, were it not for the salmon weirs that cross it. The salmon of the river are abundant, and the oysters of the harbour are much esteemed.

Youghall, at the mouth of the Blackwater, or Avonmore, is a populous town on the side of a hill. Its haven, formed by a pier and quay, receives vessels of fifteen feet, and it has some foreign and coasting trade. The Blackwater has a course of sixty miles, and was formerly navigable for large boats to the town of Mallow, forty miles from its mouth, but by the elevation of its bed, boats can now ascend only to Cappoquin, ten miles above Youghall. The sea has evidently encroached on this part of the coast, the beach at low water mark being a bog covered with sea sand, under which are found the remains of trees.

Between Cork and Youghall is Ballycotton Bay, bounded on the west by Ballycotton Island, and on the east by Ring Point and Cable Island.

Ballycotton

Cork. Ballycotton Island is a high lump of rock, the resort of sea birds. This bay is bordered by a fine sandy beach, four miles long, and abounds in lobsters, sea trout, and flat fish. It appears the most eligible spot of the south coast of Ireland for the establishment of a sea bathing place, and should the Irish ever catch the rage of thus spending their summer from the sister island, a new Brighton will probably rise on the beach of Ballycotton.

Waterford. Waterford county has but twelve leagues of coast, which is mountainous, the highlands of Dungarvon, Cappoquin, and Knockmeledown, affording long seamarks. Dungarvon is an old town, with narrow and dirty streets, surrounded by ancient walls, and having the ruins of a castle built by King John. It is pleasantly situated, and hence is visited by sea bathers. Its chief business is the fishery, particularly for hake, in which it employs fifty to sixty boats, and sends the produce, as well as a great quantity of potatoes, to Dublin.

Tramore Bay is entirely open, and has sometimes been fatally mistaken for the entrance of Waterford harbour.

WATERFORD, the third commercial town of Ireland, with the privileges of a county, has 36,000 inhabitants. It is situated on the Suire, four miles above its junction with Waterford Haven, vessels of 500 tons ascending to its quays. It has a con-

a considerable trade, chiefly in the export of provisions, particularly butter (70,000 casks a year), and 3,000 hogs are slaughtered every week in the season. It sends seventy vessels to Newfoundland. It also exports woad for dying. Here is a building yard for merchant vessels. Packets sail between this port and Milford. The Suire is navigable for boats to Carrick, twelve miles above Waterford. On the east point of the entrance of the harbour, is the Hook light-house, and on the same side is Duncannon fort, which commands the port.

Leinster. Wexford.

The Barrow empties itself into the head of Waterford Haven separating Waterford and Wexford. It is one of the largest rivers of Ireland, and is navigable for small vessels to Ross, a thriving place, with some trade. The province of LEINSTER has thirty leagues of coast, but is deficient in good harbour. The first is that of Feathard, a decayed town, with a small dry tide haven for vessels of six feet.

The Saltees are two large rocks surrounded by many others, off Feathard, and the Tusker Rock is two leagues E.N.E. from Carnsore Point, the S.E. point of Ireland.

WEXFORD, on the Slaney, has 9,000 inhabitants. The river's mouth is crossed by a bar, with fifteen feet at high water, but it is encumbered with sands. Wexford has some flourishing woollen manufactures.

Between

Wicklow. Between Wexford and Dublin Bay the coast is lined by dangerous banks, particularly off Arklow, a neat little town on the Ovo, but without a port, vessels being obliged to anchor in the open road, consequently it is only visited in summer. Arklow is famous for the desperate battle between the king's troops and rebels in 1798. It also deserves to be remarked, that some years since a considerable quantity of virgin gold was collected in the bed of a rivulet, seven miles from this town, one piece of which weighed twenty-two ounces. The spot was taken possession of by government and the search discontinued.

The town of WICKLOW, on the Leitrim, receives only vessels of nine feet at high water. It has some trade with Dublin and exports a considerable quantity of ale. On Wicklow Head, the south point of Wicklow Bay, are two light-houses.

Dublin. Bray is a fishing town, south of the entrance of Dublin Bay.

DUBLIN BAY is limited by Dalkey Island on the south, and by the peninsula of Howth on the north, the distance being six miles. The shores of the bay are highly picturesque, and have been justly compared, in this respect, to the bay of Naples. The south shore rises amphitheatrically towards the lofty Wicklow mountains, the north is lower and more level. The exposure of the bay to

to the east, however, renders it unsafe for large ships. Dublin.

Dalkey island contains about fifteen acres of salt marsh for pasturing sheep; it is uninhabited, is a quarter of a mile off shore, the channel between having eight fathoms depth. Little Dalkey, or Muggel, is close to it, and the village of Dalkey is opposite them on the main.

The places of any note on the south shore of Dublin Bay are, Dunleary, two miles and a half from Dalkey, which has a pier haven for vessels of light burden, the depths being nine feet high water neaps, and twelve at springs; Black Rock is a handsome town, beautifully situated, and much frequented for sea bathing.

The harbour of Dublin is at the mouth of the Liffey, before which are two sands, called the North and South Bull, forming a bar that admits only fourteen feet vessels at high water neaps, and those of sixteen feet at high water springs, but they lay aground. The Liffey has a course of fifty miles, but above Dublin is useless to navigation. On the south side of the river's mouth a causeway has been constructed, three miles long, at vast expense, of blocks of granite cemented, and cramped together with iron, which forms the road to Dublin, being forty-six feet wide at top, and five feet above the high water mark. At its extremity is a handsome light-house, and two miles from this point a basin 900 feet long and 450 broad, for the reception of the packets. From this causeway, named the South Wall, the

Dublin. river is quayed up to the city, and has docks on each side to receive vessels.

Dublin, the *Eblana* of Ptolemy, is estimated to contain from 180 to 200,000 inhabitants, and generally excels London in regularity and elegance. The river is also lined by some handsome quays, with docks for the vessels, and the custom house is amongst the handsomest buildings in Europe.

Clontarf is a large pleasant sea bathing village, on the north shore of Dublin Bay.

North of the peninsula of Howth, at the north point of Dublin Bay, is the island named Ireland's Eye, and here a haven has been recently constructed for large vessels, by running a pier from the head to the island. On the head is a light-house.

North of Howth are the Creeks of Baldoyle and Malahide, with ten or twelve feet at high water, to which succeeds Rogerston Harbour, within Lambay island, it has also but ten feet. The island is two miles and a half off shore, is about three miles in circuit, and uninhabited, but abounding in rabbits and sea fowl. Proceeding on is Rush Harbour, formed by a pier, with nine or ten feet, and the harbour of Skerries, formed by a quay, with ten or eleven feet springs; before it is St. Patrick's Island. Balbriggen, a fishing town, has a quay haven, with twelve feet. On each of these little havens, between Dublin and the Boyne, is a fishing village.

The

The county of East Meath has but four miles of sea coast and no port.

The Boyne River, or as it is called by the Irish, Boyne Water, separates the counties of East Meath and Louth; it has a considerable length of course, and is navigable some miles, but its mouth is crossed by a bar, with but eleven feet at high water, and nearly dry at low. It is celebrated in Irish history for the defeat of King James's army by King William, in 1690.

DROGHEDA, which has the privileges of a county, is situated on both sides of the Boyne, two miles from its mouth; it has 1,500 inhabitants, and exports provisions and corn, vessels of 150 tons going up to its quay.

DUNDALK, the county town of Louth, is a considerable ancient and thriving town, with the only manufactures of cambric in Ireland; its principal street is broad and a mile long. It has a quay for small merchant vessels. Louth.

Loch Carlingford is a deep inlet separating the counties of Louth and Down, it is well sheltered and has water for the largest ships, but several rocks render the entrance dangerous. Carlingford, on the south shore three miles within the entrance, is a declined place worthy of notice only for a castle and for its fine oysters.

NEWRY on a river that falls into the head of Ulster Down.

Ulster Down. Loch Carlingford, is considered the fifth commercial town of Ireland, exporting considerable quantities of provisions and grain. Vessels of 200 tons go up to its quay, and it communicates with the inland country by the New Canal. The town is built at the foot of a hill, one of the ramifications of the mountains of Morne, which commence on the north shore of Loch Carlingford, and is the highest ridge of Ireland, Slave Donard, one of the summits, being 3,368 feet.

Dundrum is a pleasant village on a bay abounding in sea trout and lobsters. Both the bay and harbour are dangerous, the latter being crossed by a bar on which the sea breaks except in the finest weather.

Killough, or Port St. Anne, is a pier haven for vessels of 150 tons, which has raised the town from a poor hamlet to a place of some consideration. Ardglass, half a league further, anciently the second town of Ulster, is now reduced to an insignificant village: its creek admits only boats. Strangford Haven is an inlet, five miles and a half long to a mile broad, passing through which Loch Strangford is entered, a basin fifteen miles long and five broad, with good anchorage all over it; there is however considerable danger in entering from the rapidity of the tide, which runs ten miles an hour. The Loch abounds in fish, particularly smelts, and in it are fifty-four islands of different sizes, most of which pasture cattle. The town of Strangford is on the west shore of the entrance, four miles from the sea and one from the entrance

of

of the Loch. DOWN PATRICK, on a creek in the S.W. part of the Loch, is the chief town of the county: it derives its name from a great artificial mount, supposed to be a work of the Danes, but which the Irish ascribe to St. Patrick. Vessels of fifty tons go up to the quay and it has some trade. Opposite Strangford is the little market town of Portferry, from whence a good herring fishery is carried on. *Ulster Down.*

Between Loch Strangford and Donaghadee the shore is lined by great rocks. Donaghadee has a pier haven with ten feet high water springs and eight at neaps.

Belfast Loch separates the counties of Down and Antrim: its entrance is three leagues wide, and it is easy of access and well sheltered. Off Nout Head, the south point of the entrance, are Copeland Cross and Mew Island. Copeland Island is two miles in circuit, is fruitful in oats and barley, and rears great quantities of poultry. On Cross Island is a light-house, usually called Copeland light.

Bangor, on the south shore of the Loch, has a pier haven with seven or eight feet.

BELFAST, the fifth town in population and the third in commerce of Ireland, is situated on the Lagan, a small river which falls into the Loch, five leagues from the sea and receives vessels of 150 tons. It has 18,000 inhabitants and is well built, has a great export of beef, pork, butter, linen, and glass. In 1775 the customs produced £64,800; in 1797, £87,000; and in 1802, £246,890. It has barracks for 800 men. *Antrim.*

Antrim. CARRICKFERGUS, the chief town of the county of Antrim, is on the north shore of Belfast Loch; it has a pier within which is seven or eight feet high water springs.

The harbour of Larne is small, but proper for vessels of ten feet who lay afloat quite landlocked. It is formed on the south by the peninsula of Magee.

The Bays of Glenarm and Red Bay are open but without shoals, and then succeed Cushindall and Cushindin Bays, with good anchorage in off shore winds.

The north coast of Antrim presents an immense and interesting field for observation to the geologist, in the basaltic, limestone, and chalk cliffs that compose it. According to Mr. Hamilton, this coast "seems to have been originally a compact body of limestone rock considerably higher than the present level of the sea, over which at some later period extensive bodies of vitrifiable stone have been superinduced in a state of softness. The original calcareous stratum appears to be very much deranged and interrupted by these incumbent masses; in some places it is depressed greatly below its ancient level, and in others again emerges and recovers its original height. In this manner, and with such repeated vicissitudes of elevation and depression, it pursues a course of fifty miles along this northern coast, from the Loch of Carrickfergus on the east to Loch Foyle on the west. The substance from which the limestone seems thus to have shrunk and buried itself under the covering of

of the ocean, is on examination found to be columnar basaltes." Antrim.

The most noted points on this basaltic coast are Tor Head, a promontory on which are the ruins of Dunaverne Fort. Fair Head (*Benmore* of the Irish, *Eblogdium* of Ptolemy) the north east point of the mainland of Ireland, is a vast promontory 500 feet above the sea and forming the east limit of Ballycastle Bay. "It presents to view a mass of rude columnar stones many of them exceeding 200 feet in length, and at the base of these gigantic columns lies a wild waste of natural ruins of an enormous size, which in the course of ages have been tumbled down from their foundations by storms or some more powerful operations of nature. A savage wildness characterizes this great promontory, at the foot of which the ocean rages with uncommon fury: scarce a single mark of vegetation has yet crept over the hard rock to diversify its colouring, but one uniform greyness clothes the scene all round."

Eight miles west of Fair Head is Bengore Head, composed of a number of capes formed of different ranges of basaltic pillars, and presenting an unrivalled pile of natural architecture, wherein "all the neat regularity and elegance of art are united to the wild magnificence of nature."

From the south part of the promontory of Bengore projects the celebrated Giant's Causeway 600 feet into the sea; it is formed of perpendicular pillars of basaltes in number exceeding 3,000,

standing in contact with each other and exhibiting a sort of polygon pavement, somewhat resembling the appearance of a solid honeycomb. The pillars are irregular prisms from three to eight sides, but the hexagonal ones are as numerous as all the rest together.

On a minute inspection each pillar is found to be separable into several joints, whose articulations are neat and compact beyond expression, the convex termination of one joint always meeting a concave socket in the other.

The island of Reghery or Rathlin of the maps, six miles from Fair Head, is also an object worthy of notice for its basaltic columns and chalky cliffs, and for the phenomenon of mirage similar to the Fata Morgana often observed in the strait that separates it from the main. This island is five miles long and three quarters of a mile broad, having a large concavity on the south side opposite the main that forms a good road in moderate weather. The island has 1,100 inhabitants, who cultivate some barley, rear sheep and burn kelp, of which 100 tons are exported.

The only villages on the north coast of Antrim are Ballycastle opposite Reghery Island, which has a little pier haven for vessels of 150 tons and exports £7,000 worth of coals a year.

Returning to the Bay of Galway we shall now proceed along the west coast of Ireland.

Galway Bay is six leagues wide and seven deep, and

and has a great many islands before it and along shore north and south. The principal of these are the three Arran Islands, with good channels into the bay between them; they belong to Clare county. There are many anchoring grounds in the bay but no good harbours, and with S. and S.W. winds a heavy swell rolls in. Galway.

Galway, the chief town of Connaught and the seventh or eighth of Ireland, is situated on the broad and stony river by which Loch Carib empties itself. It is a well built town though rather crowded, and many of the houses 200 years old, chiefly of stone with projecting balconies; the streets are long and narrow, and the whole is surrounded by ancient walls fast going to decay. Vessels are obliged to anchor in the bay and discharge into lighters. Its chief business is the linen trade and salmon and herring fishery, the latter of which employs some hundred boats.

The coast north of Galway Bay is lined by many rocks and islets, the enumeration of which would be useless and tiresome. The bays towards Sline Head are Casleh Haven, fit for vessels of nine or ten feet; Greatman's Bay, well sheltered for vessels of twelve feet; Casheen and Kilkerran Bays, fit for large vessels; Birterbui Bay, capable of sheltering the largest fleets; Roundstone Bay, fit only for small vessels. Sline Head, the west point of Galway, is rocky, and steep to.

North of Sline Head are Cudbear Bay, encumbered

Galway. bered with islands and rocks, but safe and sheltered within. Rocks and shoals continue to line the shore between Cudbear and Claggan: the latter is a good road, and to it succeeds Ballin Nakiel Harbour fit for the largest ships. Continuing along shore, which is still lined with islands, we came to the Killery Harbour, separating Galway and Mayo. Mayo, capacious and fit for large ships; then Salroke Harbour, deep but so narrow that it requires a leading wind to go in or out.

New Port Bay has several good roads for the largest vessels, being four leagues long with many islands. Before it lies Clare Island with a castle. The next bay is that of Blacksod, formed by Achil Island on the south, and affording a land-locked harbour for the largest ships, the entrance being four miles wide. Broadhaven is the next bay, and has sufficient depth but not space for more than two large ships. Amongst the islets which still continue to line the coast, the most conspicuous are those called the Stags of Broadhaven; where commences an interval of clear coast bound by steep rocky cliffs.

Killala Bay is a tolerable anchorage, and at its head is the town of Killala with a harbour, crossed by a bar with ten feet high water neap tides, and within it vessels of eight or nine feet lay perfectly safe, and vessels of twelve feet may get into it with high springs. Killala, though a bishoprick, is a poor town with little other business than a fishery.

Sligo

Sligo Bay, *Lignius* of Ptolemy, is capacious and has several good roads and harbours among the latter are Oyster Island Harbour, where is three fathoms depth at low water, and a quay. The town of SLIGO is on a creek at the head of the bay, and has 8,000 inhabitants; though vessels of 200 tons can go up to the quay at spring tides, it has little trade. Sligo.

The coast of Donegal is mountainous and dreary, the sea air preventing the growth of any trees, and the drift sand continually shifting. Donegal.

Donegal Bay is six leagues wide and seven deep, and contains many harbours, particularly the following:—Milk Haven, a creek for vessels of eight or nine feet; Ballishannon Harbour, also only fit for small vessels; Donegal Harbour is a pool on the east side of a peninsula, two miles below the town, where vessels lay afloat in two or three fathoms. DONEGAL, on the river Eske, has a market but is an inconsiderable place.

On the north shore of Donegal Bay are Inver Bay, with a quay for vessels of eight feet, and Killybegs Harbour fit for large ships. The town of Killybegs is chiefly inhabited by fishermen.

From the bay of Donegal the coast is lined with islands, one group of which is called the Rosses, and the largest is Arranmore, nine miles in circuit and one mile from the main. On this island is the village of Rutland, latterly founded as a fishing station.

Sheep Haven is spacious but exposed to N. and N.E.

Donegal. N.E.; near it is Horn Head remarkable for a sea worn cavern, with an opening to the land through which the waves force up a column of water, with a noise that is heard thirty miles. Mulroy Harbour is fit for the largest ships, but the channel is narrow and difficult.

Loch Swilly is a capacious inlet twenty miles long and two broad, forming one of the most perfect harbours in the world; but having scarce even a village on its shores, it is totally unfrequented except by an occasional ship for shelter. Loch Strabragy, further east, is fit only for small vessels. From hence the coast forms many noted promontories, of which the most conspicuous are Malin-Head, the extremity of a peninsula; and Coldah Head, the north point of Ireland.

Londonderry. Loch Foyle or Fiole is an inlet eighteen miles long and eight broad; its entrance is one mile and a half wide with eight and ten fathoms, and on the south side of it is the Tuns Bank, on which the sea breaks with great fury. The Loch offers a secure haven for the largest fleets.

LONDONDERRY, at the head of Loch Foyle, is a neat town on the river Foyle, which is crossed by a wooden bridge of masterly construction, 1,068 feet long. The town has 10,000 inhabitants and a considerable trade with America and England. Its exports are linen, linen-yarn, and the produce of the fishery; large vessels go up to the town, which is surrounded by walls, and has a military governor. The ruins of several fortresses are seen

on

on the banks of the river. Newton Limavaddy is a thriving village, on a creek of the east shore of Loch Foyle. Londonderry.

The Ban Water is one of the most picturesque rivers of Ireland, running through Loch Neagh and emptying itself with a rapid and broad stream, but crossed by a bar with only ten feet at high water springs. It has the most productive salmon fishery of Ireland, renting for £6,000; the fishery is from January to August, and 1,452 fish have been taken in one sweep, and 400 tons in a season. Its eel fishery also rents for £1,000. Coleraine, four miles and a half from the entrance of the river, is a handsome town of 4,000 inhabitants and considerable trade, exporting butter, hides and salmon; in 1801, the customs produced £6,000.

The last place before we come to the Giant's Causeway is Port Rush, a creek fit only for vessels of seven feet who lay aground at low water.

CANALS.

The capabilities of Ireland for inland navigation are exceeded by few countries, if the principal rivers were improved and united by canals. Of the latter three only deserving mention have been executed. The first is named the Grand Canal, and unites the Shannon and Liffey, running sixty-one miles and a half through the counties of Dublin, Kildare, and King's; it also communicates by collateral branches with the Boyne and Barrow. The main canal is five feet deep, the locks eighty feet long and sixteen wide, built of hewn stone. The Canals.

Limerick

Canals. Limerick Canal, from Limerick to Leitrim, is chiefly intended to supply Limerick with turf. The Newry Canal opens a communication from Newry by the Ban River into Loch Neagh, and the Belfast Canal forms a communication between Belfast and the same loch, by the Lagan River.

Commerce. After being occupied 1,000 years by a race of Celtic barbarians, Ireland was invaded by the East Gothmen, and, according to Sir William Petty, "there are no vestiges remaining to lead to the supposition that the Irish had then any stone house, any money, any foreign trade, any learning, but the legends of saints; nor any manufacture, nor the least use of navigation or the art military."

The conquest of the island by Henry II. may be considered as the commencement of colonization of a country inhabited by barbarians, but by barbarians who did not submit quietly to the yoke of their more civilized conquerors, and hence for four centuries the sword was seldom sheathed. The first proof we have of the progress of civilization in the extension of commerce, is in a rhyming account of its trade in 1487, which notices the exports of hides, skins of wild animals, wool and *linen cloth*.

At length in the reign of James I. the Irish were brought under the salutary restraint of law, and the number of English who settled in the country pushed the spirit of commercial enter-

prize

prize and industry to an extent before unknown to the native Irish. The iron works were at this time the chief object of speculation, and the destruction of timber for their use, as well as its export, reduced the island from one vast forest nearly to a naked waste. Commerce.

The rebellion of 1641 threw Ireland back into barbarism, from which however she again emerged at the restoration, and the progress of improvement went on until the civil war of the revolution again wasted the country, and had the most baneful effects on its industry. With tranquillity, however, returned commerce, and in spite of all the errors of legislation, the intrigues of faction, and the horrors of rebellion, the progress has gone on and still continues; for the proof of which we refer to the abstract at the end of the volume.

The trade between England and Ireland consists in the export of manufactures, coals and colonial produce, and the imports of salt provisions, butter, linen, and corn.

To the Baltic Ireland sends the same objects as to England, and receives oak bark, herrings, flax, iron, oil, potash, and naval stores.

To Holland Ireland formerly sent her staple productions, and received flax, linseed and linseed oil, thread, iron, steel paper, starch, snuff, gin, and garden seeds.

To France Ireland sent her staples, and received wine, capers, cork, brandy, oil, and paper.

The trade between Ireland and Spain was almost entirely against the former, the exports being a trifling

Commerce. trifling quantity of linen and salt fish, and the im- about £100,000, chiefly barilla.

To Portugal Ireland sends butter chiefly, and imports wine, salt, oil, oranges and lemons, cork and barilla.

Ireland has some trade with the British American colonies for their produce, and also sends her own ships to the West Indies; but by far the largest proportion of the colonial produce consumed in the kingdom is brought from Great Britain.

Most of the vessels belonging to Ireland are British-built, there being few building establishments in the former kingdom; nor do we believe that a vessel of 500 tons was ever constructed there.

Fisheries. Though no country of Europe offers a greater practicable extension of the fisheries than Ireland, it was not until 1764 that the government thought of encouraging them, and they still remain comparatively trifling. The principal herring fishery is carried on the coast of Donegal, from Loch Swilly to Inverbay. At this latter the season commences in July and ends in September, while in the other part it begins in November and ends in January; the busses employed in it are twenty to 100 tons burden, and the fish cured here are esteemed equal to those of Holland. In 1780, 100 vessels were employed in this fishery, and 100,000 barrels of herrings were cured, chiefly, however, by strangers from Scotland, Liverpool, and the Isle of Man. In the same year 36,000 barrels of

of herrings were exported from hence to the West Indies. Herrings are also taken on the coast of Sligo and Mayo as far south as Broadhaven, but the fish are inferior, and in Loch Strangford, where the season is from July to September.

In Dublin Bay a considerable fishery for home consumption is carried on, the chief fish taken being whiting and pollock; eighty-seven wherries and fifteen to twenty yawls are employed in this fishery.

Most of the rivers of Ireland, but particularly those of the north, abound in salmon. The most productive fishery is that of Cranna, in the Ban water, already noticed, the produce of which was formerly salted and exported to Venice and Leghorn.

The white fishery of Ireland at present affords little more than a sufficiency for consumption, though considerable quantities of dried cod and hake were formerly sent to Spain, principally from Waterford.

From the south coast of Ireland, between the mouth of the Shannon and Carusore Point, a great bank runs off to the distance of twenty leagues. That part of it opposite Waterford is named the Nymph Bank, and abounds in cod, hake, ling, bream, skate, whiting, red gurnet, &c. The depths on it are seventy to forty-five fathoms, the ground chiefly pebbles and broken shells.

Whales not unfrequently stray to the N.W. coast of Ireland, chiefly in March and April, and many have been taken in Donegal Bay.

APPENDIX.

COMMERCE OF GREAT BRITAIN AND IRELAND.

No. I.—*View of the Exports of England and Scotland, and the net Receipt of Customs, from* 1663 *to* 1810.

YEAR.	SHIPS CLEARED OUT.		EXPORTS. OFFICIAL VALUE.		CUSTOMS.
	English Tonnage.	*Foreign Tonnage.*	*England.*	*Scotland.*	
1663 } 1669 }	95,266	£47,634	£2,043,043	—	£300,000
1688.....	190,533	95,267	4,086,087	—	551,141
1700.....	273,693	43,635	6,045,432	—	1,474,861
1715.....	421,431	26,573	7,274,025	—	1,588,162
1726.....	432,832	23,651	7,891,739	—	1,621,733
1736.....	476,941	26,627	9,993,352	—	1,492,009
1750.....	609,798	51,386	12,599,112	—	1,565,942
1760.....	540,241	107,237	14,694,970	£1,086,205	1,969,934
1770.....	806,495	63,176	14,266,654	1,727,917	2,546,144
1780.....	731,286	154,111	11,677,417	981,199	2,723,980
1790.....	1,424,912	148,999	18,884,716	1,235,405	3,782,822
1800.....	1,445,271	685,051	40,805,950	2,346,069	6,799,755
1809.....	1,531,552	699,750	45,918,663	4,383,106	10,289,807
1810.....	1,624,274	1,138,527	41,129,620	4,740,239	10,871,273
1811.....	—	—	45,869,807	—	—
1812.....	—	—	32,409,770	—	10,302,965
1813.....	—	—	43,241,532	—	10,453,958

No. II.—*Comparative View of the British Manufactures exported in* 1699, 1769, *and* 1790. (*Official Value.*)

	1699	1769	1790
Woollen manufactures.....	£2,561,616	£4,323,464	£5,956,733
Other manufactures	2,690,066	6,245,304	10,744,092
	5,251,722	10,568,768	15,860,826

No. III.—*Comparative View of the Commerce of England and Scotland*, 1800. (*Official Value.*)

		British Mer.	*Foreign Mer.*	*Total Exports.*	*Imports.*
Exports	England	£22,455,560	£18,350,389	£40,805,950	£28,357,814
	Scotland..	1,848,723	497,346	2,346,069	2,212,790
		24,304,283	18,847,735	43,152,019	30,570,604

No. IV.—*View of the Merchandize exported to different Parts of the World in* 1809. (*Real Value.*)

To the north of Europe and France	£14,574,983
— Spain	3,035,045
— Portugal	1,124,098
— Gibraltar, Malta, Sicily, and the Levant	8,456,211
— Ireland, Isle of Man, Guernsey and Jersey	7,565,599
— Asia	2,999,440
— Africa	976,872
— the United States of America	7,460,768
— British and Spanish America, and the West Indies	19,833,696
	66,817,712
Imports	51,133,063
Real balance..	14,884,649*

No. V.—*Exports and Imports of Great Britain in* 1811, 1812, *and* 1813. (*Real Value.*)

	1811	1812	1813
Exports..	£65,360,431	£46,506,393	£63,455,314
Imports	69,931,429	48,665,186	46,583,396

* In 1809, the coasting trade was estimated at .. .. 60 millions
And the inland trade at 120
The value of shipping 25
Freight at £5. per ton 11
Sundry items 10
Foreign trade.. 117
Total of assumed floating capital .. .. .. 343 millions

No. VI.—*East-India Trade.* (*Official Value.*)

Years.	Ships.	Tonnage.	EXPORTS. Bullion.	Goods.	Imports.
1614	—	—	£12,000	£24,000	£ —
1629	—	—	62,490	28,508	108,887
1674	—	—	320,000	100,000	860,000
1683	22	10,880	bull. and goods	482,147	—
1689	2	875	—	30,239	—
	Average.				
1690 } 1709 }	10	—	—	400,000	—
1710 } 1730 }	14	6,000	500,000	100,000	1,500,000
1731 } 1765 }	19	8,000	500,000	260,000	2,000,000
1766 } 1792 }	30	22,000	200,000	610,000	4,900,000
1793 } 1809 }	43	37,000	500,000	1,800,000	8,000,000
1812	—	—	—	—	4,106,000

In 1810, the East-India Company's shipping was :—

	Tons.
64 regular vessels of from 756 to 1,200 tons	68,000
39 extra ships	22,000
Manned by 8,000 men	90,000

No. VII.—*Registered Shipping of the British Dominions in Europe and America, 30th September* 1800.

Ports.	Ships.	Tons.	Men.
London :			
Foreign trade	1,810	503,676	37,046
Coasting do.	856	64,586	4,356
Liverpool	796	140,633	12,690
Newcastle ...	632	140,955	7,054
Sunderland ..	506	75,319	3,400
Hull.....	611	68,533	4,223
Whitehaven..	457	56,869	3,426
Whitby	237	36,868	2,014
Yarmouth ..	375	32,967	2,442

Ports.	Ships.	Tons.	Men.
Bristol	186	26,193	1,674
Lancaster....	140	19,094	1,926
Scarborough .	118	18,921	1,068
Dover	254	15,800	3,155
Plymouth ..	232	14,800	1,053
Beaumaris ..	362	13,799	1,094
Southampton	243	12,888	951
Lynne.....	119	12,639	769
Exeter.....	148	12,372	772
Dartmouth ..	209	11,215	1,048

Ports.	Ships.	Tons.	Men.
Rochester ..	275	10,756	804
Poole	153	10,733	851
Portsmouth..	212	7,985	604
Cardigan	247	7,577	753
Harwich	137	7,015	814
Boston.....	122	6,389	410
Weymouth ..	105	6,098	451
Falmouth ..	62	5,656	666
Malden	178	5,525	421
Bridlington..	38	5,486	272
Berwick	61	5,399	358
Barnstaple ..	73	5,387	326
Sandwich....	97	5,116	380
Faversham ..	248	4,888	580
Ipswich	94	4,799	299
Colchester ..	156	4,663	434
Biddeford ..	67	4,659	256
Fowey.....	76	4,610	467
Swansea	81	4,412	251
Rye.....	87	4,310	410
Pembroke ..	99	3,775	318
Stockton	41	3,398	201
Cowes..	128	3,279	343
Chepstow....	40	3,264	209
Aberystwith.	75	3,197	265
Wells	52	3,078	237
Southwold ..	39	2,878	192
Ilfracombe ..	57	2,851	224
Gloucester ..	74	2,687	221
Llanelly	63	2,668	182
Milford	36	2,533	146
Padstow	48	2,162	173
Deal.....	34	2,084	387
Woodbridge..	33	2,061	125
St. Ives	39	2,044	143
Arundel	28	1,926	108
Blakney and Clay.....	24	1,876	115
Bridgewater..	35	1,831	129
Chester.....	26	1,734	113
Lyme	21	1,733	81
Preston ..	33	1,630	71
Penzance.	27	1,418	121
Looe	22	1,257	108
Wisbeach	22	1,215	66
Truro....	17	1,205	75
Newhaven	20	1,187	77
Aldburgh	29	1,177	117
Minehead	24	1,125	78
Cardiff ..	29	1,096	95
Carlisle ..	19	1,064	68
Shoreham	30	902	101
Penryn ..	6	339	18
Scilly....	10	261	26
Gweek ..	14	236	30
Total England ..	12,198	1,466,632	105,037
Guernsey.	77	6,403	781
Jersey ..	53	4,244	631
Isle of Man,			
Douglas ..	79	1,819	429
Ramsea ..	69	1,650	394
Peel.....	61	1,435	354
Derby	29	559	108
	368	16,110	2,697
SCOTLAND.			
Greenock..	377	35,057	3,804
Aberdeen..	281	23,236	1,585
Leith	134	13,894	899
Kirkaldy ..	97	11,348	690
Port Glasgow	90	10,052	785
Dundee ..	123	8,741	641
Burrowstowness	130	8,406	550
Montrose..	112	6,555	506
Alloa	100	6,242	378
Irvine	82	5,783	448
Rothsay ..	92	5,404	958

Ports.	Vessels.	Tons.	Men.
Cambeltown	75	3,496	618
Ayr	44	3,256	237
Perth	31	2,429	151
Inverness..	42	2,143	177
Anstruther.	46	2,128	167
Stornaway.	50	1,759	208
Stranraer ..	38	1,688	157
Dunbar ..	16	1,584	162
Kircudbright	35	1,514	162
Wigton ..	34	1,195	97
Dumfries..	29	1,190	95
Thurso....	17	1,035	76
Kirkwall ..	15	923	80
Oban	18	904	79
Lerwick ..	17	553	60
Isle Martin.	10	349	33
Fort William	7	245	22
Port Patrick	4	174	21
Tobermory.	6	124	22
Preston Pans.	3	102	15
Total Scotland....	2,115	161,511	13,883

IRELAND.

Dublin....	257	17,317	1,666
Cork	78	5,869	464
Youghall ..	114	5,051	417
Belfast....	49	4,476	332
Newry....	60	3,041	220
Wexford ..	62	2,664	288
Waterford.	28	2,069	223
Kinsale..	52	1,624	166
Limerick..	29	1,458	194
Baltimore..	37	1,232	127
Larne	30	1,124	94
Strangford.	31	1,122	115
Drogheda..	17	969	103
Donaghadee	28	940	122
Ross.....	14	925	71
Wicklow ..	22	797	69
Londonderry	12	772	58
Dundalk ..	10	755	59
Galway ..	31	735	85
Colraine..	13	409	54
Killybegs .	8	319	52
Sligo	8	251	35
Tralee	7	180	26
Newport ..	4	120	19
Ballyrain ..	2	43	7
Total Ireland	1,003	54,262	5,057

COLONIES.

Canada	Quebec..	171	10,835	664
	Carlisle..	38	1,327	116
Nova Scotia	Hallifax	321	18,979	1,424
	Shelburne	88	3,856	351
New Brunswick, St. John		113	13,215	710
Newfoundland, St. John		67	3,845	330
Cape Breton, Sydney		163	4,707	406
Prince Edward Island		41	1,108	143
Bermuda, St. George		144	10,422	1,061
Bahamas	New Providence	962	15,415	1,110
	Turcle Island	6	435	86
	Exuma	2	38	6
Jamaica	Kingston...	526	48,132	292
	Montego Bay	43	2,270	210
	Port Antonia	8	605	39
	St. Lucea ...	4	271	28
	Savannah la Mar....	2	48	6
Tortola		76	6,817	581
St. Kitts	Basse Terre	51	4,519	209
	Sandy Point	7	638	57

Ports.	Vessels.	Tons.	Men.
Nevis	24	1,450	171
Antigua	211	12,563	920
Montserrat	12	1,388	76
Dominica	55	3,172	375
St. Vincent	55	2,774	311
Grenada	160	10,117	785
Barbadoes	82	6,957	510
Conquered Colonies: Martinique..	282	23,583	2,351
St. Lucie...	15	582	64
Tobago....	19	2,163	145
Demerara..	18	1,403	148
Surinam...	11	1,112	75
Total Colonies	2,161	157,364	12,047

Ports.	Vessels.	Tons.	Men
GENERAL RESULT.			
England and Wales .	12,198	1,466,632	105,037
Guernsey and Jersey .	130	10,647	1,412
Man	238	5,463	1,285
Scotland .	2,155	161,511	13,883
Ireland ..	1,003	54,262	5,057
Colonies .	2,161	157,364	12,047
Grand Total	17,885	1,855,879	138,721
1799....	17,874	1,725,815	135,237
1801....	19,712	2,038,262	149,566
1812 ...	24,107	—	165,030

No. VIII.—*Abstract of the Commerce of Ireland from* 1665 *to* 1811. (*Official Value.*)

Years.	*Exports.*	*Imports.*
1665 —	£358,077* From England 200,450 }	£ 336,043
— —	— — Foreign 135,593 }	
1697 —	525,004	— 423,182
1698 —	996,305	— 576,863
1751 —	1,856,605	— 1,497,437
Average of 1796-97 † { Irish Merchand. 5,650,853 } { Foreign Merch. 133,522 }	5,784,375	— 5,275,063
1801 —	4,100,526	— 5,591,503
1810 —	6,098,485	— 6,564,578
1811 —	6,090,411	— 7,231,603

* Produce of agriculture £309,808
Fish 24,107
Timber 2,354
Iron 1,116
Skins of hares and rabbits 2,687
Linen yarn 17,635
Linen 590
£358,077

† Exports to Grt. Britain £4,970,318
To all other parts ... 814,057
£5,784,375

Imports from Great Britain 4,011,468
From all other parts .. 1,263,595
£5,275,063

The real value of the exports and imports gives a very different result as to the balance of trade, viz.

	Exports.	*Imports.*
1811..	£12,091,600 ..	£10,331,527
1812....	12,075,619	11,348,055
1813....	13,270,288	13,841,180

No. IX.—*Shipping employed in the Trade of Ireland.*

	Inwards.		Outwards.	
Years.	*Ships.*	*Tons.*	*Ships.*	*Tons.*
1808	8,532	789,509	7,937	755,926
1811	10,004	949,997	9,309	898,386

NAVY.

No. X.—*Ships furnished by the various Ports of England for the Siege of Calais,* 1346.

	Ships.	*Mariners.*		*Ships.*	*Mariners.*
London	25	662	Southampton ..	21	572
Dunwich	43	1,095	Sandwich	22	504
Fowey	47	770	Lynn	16	482
Dartmouth	31	757	Hull	16	466
Bristol	24	608	Newcastle	17	414
Plymouth	26	603	Gosford*	13	403
Winchelsea	21	596	Dover	16	366

The following were the chief exports in the average of 1796-7-8, viz.		Hogs' lard	16,000
Linen	£2,639,000	Soap	14,000
Provisions	1,630,000	Copper ore	10,000
Corn	441,000	Woollen manufactures ..	10,000
Linen yarn	127,000	Rape seed	8,000
Live cattle	122,000	Horses	7,000
Raw hides	70,000	Feathers	7,000
Silk manufactures ..	35,121	Fish	7,000
Tallow	33,000	Kelp	7,000
Candles	24,000	Live Hogs	5,000
Woollen yarn	20,000	Spirits	5,500
		Iron	3,000

* The names of several ports occur whose situations are unknown.

	Ships.	Marin.
Boston	17	361
Shoreham	20	329
Looe	20	325
Harwich	14	283
Weymouth	20	264
Ipswich	12	239
Isle of Wight	13	220
Hooke	11	208
Exmouth	10	193
Grimsby	11	171
Margate..	15	160
Lymington	9	159
Rye	9	156
Hartlepool	5	145
Teignmouth	7	120
Hamilhoke.. ..		117
Hythe	6	112
Dunwich	6	102
Portsmouth	5	96
Hastings	5	96
Colchester	5	90
Poole	4	94
Ilfracombe	6	79
Seaford	5	80
Romney..	4	75
Lyme	4	62
Sidmouth	3	62
Orford	3	62
Broughlyngsey	5	61
Barton	5	61
Pollrewan	1	60
Wareham	3	59
Hendess..	1	51
Saltfleet	2	49
Yalie	2	48
Waynfleet	2	43
Blackney	2	38
Malden	2	32
Swinhumber	1	32
Barton	3	30
Swansea..	1	29
Ravenner	1	28
Tinmouth	2	25
Sidmouth	2	25
Aylesford	2	24
Hoo..	2	24
Hope	2	24
Morne	2	23
Faversham	2	23
New Hythe	5	19
Scarborough.. ..	1	19
Newmouth	2	18
Padstow	2	17
Whitebanes	1	17
Caermarthen ..	1	16
Bridgewater	1	15
Derwen	1	15
Wadworth	1	14
Walrich	1	12
Woodhouse	1	12
Calchworth.. ..	1	12
Molbroke .. .	1	12
Swanfleet	1	11
Strockhithe	1	10
Banborough.. ..	1	9
York	1	9
Wrangle	1	8
Merten	1	6
King's own fleet ..	25	419
Total England ..	710	14,151
Ireland	1	25
Bayonne	15	439
Flanders..	14	133
Spain	7	184
Guelderland	1	24
	748	14,956

The average of men to each ship is under twenty, the largest single ship noticed contained sixty.

No. XI.—*View of the progressive Increase of the Royal Navy.*

Year.	Ships.	Tons.	Men voted.	Expense, ordinary.*	Wear and Tear.
1521	16	7,260	——	——	——
1548	53	11,268	7,731	——	——
1578	24	10,506	6,570	——	——
1603	42	17,055	8,346	30,000	——
1624	33	19,400	——	——	——
1641	42	22,411	——	——	——
1658	157	57,000	21,910	——	——
1675	151	70,587	30,260	——	——
1688	173	101,892	42,003	——	——
1702	272	159,020	40,000	129,314	——
1714	247	167,219	10,000	245,700	——
1727	233	170,862	20,000	200,000	——
1753	291	234,924	10,000	280,206	——
1760	412	321,104	70,000	432,629	364,000
1783	617	500,781	110,000	1,763,832	5,406,000
1789†	452	413,667	20,000	1,288,570	1,040,000
1793	498	433,226	45,000	1,056,915	2,304,000
1801	—	——	135,000	1,371,318	9,450,000
1806	—	——	120,000	3,026,183	14,113,000
1813	—	——	145,000	3,021,721	11,534,687

Of recent years the Transport Board has been a distinct branch of the naval establishment, having the superintendence of all things relating to transports, sick and hurt seamen, and prisoners of war; in 1812 the expense of this department amounted to four millions, of which near two millions was for prisoners of war.

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* In the ordinary estimates of the navy are included the expenses of the Admiralty, Navy, and Victualling Offices, the half-pay, superannuation, and pensions to naval officers, superannuation to civil officers, buildings, repairs and building of ships. In the estimate of the expences of *ships* in commission are included wages, wear and tear of ships, victuals and ordnance.

† In 1789 the peace establishment of ships in commission was two second-rates, fifteen third-rates, one fourth-rate, five fifty-gun ships, six two-decked forty-fours, thirty-one frigates of thirty-six to twenty guns, and one sloop, besides cutters.

No. XII.—*Abstract of the Navy List for March* 1, 1815.

	Line.	50 & 54.	*Frigates.*	*Sloops, &c.*	*Gun Brigs, &c.*
In commission efficient ships.....	58	16	132	129	171
— Guard ships, prison and hospital ships	7	2	2	1	—
Total in commission	65	18	134	130	171
In ordinary.....	114	12	66	40	38
Building.....	21	2	6	5	2
	200	32	208	177	211

Commissioned Officers of the Royal Navy, March 1, 1815.

1 admiral of the fleet, H. R. H. the Duke of Clarence,
24 Admirals of the Red,
24 ——— of the White,
21 ——— of the Blue,
27 Vice Admirals of the Red,
24 ——— of the White,
22 ——— of the Blue,
27 Rear Admirals of the Red,
26 ——— of the White,
23 ——— of the Blue,

219

35 superannuated Rear Admirals,
824 post captains,
39 superannuated captains,
762 commanders,
80 lieutenants retired with the rank of commanders,
3,211 lieutenants,
7 lieutenants, knights of Windsor,
668 masters,
16 physicians,
888 surgeons,
563 assistant surgeons,
974 pursers,
59 chaplains.

Royal Marines.

1 general,
1 lieut. general,
1 major general,
} Admirals in the Navy,

4 colonels ..... post captains,
5 colonels commandant,
6 second colonels commandant,
8 lieutenant colonels,
8 majors,
177 captains,
16 second captains,
368 first lieutenants,
332 second lieutenants.

TABLE OF GEOGRAPHICAL POSITIONS.

Place.	Latitude.	Longitude.
Polynesia.	North.	
Tinian Island	15° 0′	145°55′E.
Guam Island, Bay	13 21	144 19
Uraccas	20 25	146 15
Owhyee, Karakakoa Bay	19 28	155 56W.
Tongataboo Island	21 9S.	175 1
Maouna Island ..	14 21	170 16
Otihatoo, (Marquesas)	9 55	139 8
Otaheite, Matavai Bay	17 29	149 36
North America.		
Cape Chidley, entrance of Hudson's Bay.....	60 14N.	65 20
Nain, (Labrador) .	57 0	61 30
Strait of Belleisle,	52 0	55 30
Newfoundland ..		
St. John's	47 32	52 25
Cape Race	46 40	53 3
Cape Raye	47 37	59 13
Cape Breton....		
Louisbourg	45 54	59 55
Quebec	46 48	71 5
Nova Scotia.....		
Cape Sable	43 24	65 39
Halifax.....	44 42	63 26
River St. Croix, limit of the United States	45 7	67 8
Boston.....	42 24	71 3
Nantucket Island, Lights	41 23	70 6
New York	40 41	74 11
Cape May	38 57	75 2
Philadelphia	39 56	75 16
Washington.....	38 55	77 10
Baltimore	39 22	76 55
Cape Henry, Virginia.....	36 57	76 21
Cape Hatteras	35 7	76 12
Cape Lookout	34 23	77 10
Wilmington	34 12	78 25
Cape Fear	33 50	78 29

Place.	Latitude	Longit.
North America.	North.	West.
Charlestown Lights	32° 43′	80° 6′
Savannah Lights..	32 1	80 56
Amelia Island, north end	30 40	81 35
St. Augustine	29 54	81 32
Cape Florida	25 41	80 13
Cape Sable	24 57	81 17
West India Islands.		
Great Bahama, west end	26 43	79 0
Nassau, Bahama..	25 7	77 2
Grand Turk Island	21 32	71 10
Cuba. Havannah ..	23 10	82 14
Cuba. Cape Maise, East Point..	20 16	74 3
Cuba. Cape Antonio, West Point.	21 54	84 58
Jamaica. Kingston	18 0	76 45
Jamaica. Morant Point East.....	17 56	76 5
Jamaica. South Negril Point West .	18 16	78 32
St. Domingo. Port au Prince	18 34	72 21
St. Domingo. Cape François	19 46	72 15
St. Domingo	18 29	69 50
St. Domingo. Cape Engano, East Point..	18 34	68 20
St. Domingo. Cape St. Nicholas, West Point.....	19 49	73 28
Porto Rico. St. Juan	18 29	66 5
Porto Rico. Point Boriquen, N.W.	18 31	67 8
Porto Rico. Cape St. John, N.E.....	18 24	65 35
Tortola, Bay	18 25	64 39
St. Christopher, Basse Terre	17 19	63 49
Antigua, St. John	17 9	61 57
Guadaloupe, Fort Louis	16 15	61 35
Dominica, Prince Rupert's Bay ..	15 35	61 33
Martinique, Port Royal	14 36	61 9

TABLE OF GEOGRAPHICAL POSITIONS *(Continued)*.

Place.	Latitude	Longitude.
West India Islands.	North.	West.
St. Lucie, Carenage	13°57	61° 7′
St. Vincent, Kingston	13 9	61 15
Barbadoes, Bridgetown	13 5	59 43
Grenada, Fort St. George	12 3	61 49
Tobago, Man of War's Bay	11 22	60 32
Trinidad, Spanish Town	10 39	61 34
Gulf of Mexico and Caribbean Sea.		
Pensacola	30 25	87 26
Entrance of the Mississipi	29 0	89 20
New Orleans	29 57	90 0
Vera Cruz	19 12	96 1
Cape Catoche	21 25	87 0
Rattan Island	16 26	86 30
Black River	15 58	84 58
Cape Gracias à Dios	15 1	82 46
Porto Bello	9 33	79 35
Carthagena	10 25	75 26
Porto Cabello	10 30	68 5
La Guaira	10 36	66 57
Cape Three Points	10 46	62 42
Curaçoa, Amsterdam	12 8	68 32
Margaretta, Galera Point	11 10	63 58
Entrance of the Orinoco, Cape Bonaire	8 22	60 10
Entrance of the Essequibo	7 0	58 21
Entrance of the Demerara	6 48	58 1
Entrance of the Berbice	6 20	57 11
Entrance of the Surinam	5 51	55 17
Cayenne	4 56	52 16
Entrance of Amazons	1 25	50 51
Brasil.	South.	West.
St. Luis of Maranham	2° 29′	43° 40′
Seara	3 30	38 28
Cape St. Roque	5 3	35 30
Fernambuco	8 8	35 8
Cape St. Augustine	8 25	35 33
St. Salvador (Bahia)	13 0	39 15
Porto Seguro	16 26	40 12
Espiritu Santo	20 15	40 28
Cape Frio	23 1	41 45
Rio Janeiro	22 54	43 11
Santos	24 5	46 5
St. Catherine Island, North Point	27 19	47 40
Rio Grande de St. Pedro	32 10	52 3
Rio de la Plata, Cape Santa Maria	34 42	53 47
Cape St. Antonio	36 21	56 45
Maldonado	34 56	54 50
Monte Video	34 54	56 13
Buenos Ayres	34 35	58 24
Patagonia.		
Port St. Antonio	40 54	64 37
St. George's Bay	45 42	67 24
Port Desire	47 45	66 0
Port St. Julian	49 7	67 39
Falkland's Islands, Port Egmont	51 24	60 0
Entrance Strait Magellan		
Cape Virginia	52 18	68 17
Queen Catherine's Foreland	52 41	68 25
Staten Island, Cape St. John	54 47	63 42
Cape Horn	55 58	67 26
Diego Ramirez Islands	56 30	68 48
West Coast of America.		
Christmas Sound	55 25	69 50

TABLE OF GEOGRAPHICAL POSITIONS (*Continued*).

Place.	Latitude.	Longitude.	Place.	Latitude	Longitude.
West Coast of America.	South.	West.	*West Coast of America.*	North.	West.
Cape Desolation ..	54° 53′	71 42	Mount St. Elias ..	60° 22′	141° 0′
Strait of Magellan			Prince William's		
Cape Pillar	52 45	74 54	Sound	60 16	146 26
Cape Victory	52 23	74 36	Cooks Inlet, Cape		
Cape Tres Montes	46 59	75 26	Elizabeth.....	59 9	151 27
Chiloe Island,			Kodiak Island,		
Castro	42 41	74 3	Cape Greenville .	57 34	152 0
Valdivia	39 51	73 26	Oonalaschka.....	53 54	166 22
Mocha Island	38 22	74 0	Bristol River En-		
Conception	36 42	73 0	trance	58 12	157 33
Valparaiso	33 1	71 52	Cape Stephens....	63 33	162 17
Coquimbo	29 54	71 24	Cape Prince of		
Copiapo	27 10	71 0	Wales	69 45	168 17
Iquique Island....	20 7	70 27	Cape Mulgrave ..	67 45	165 12
Arica	18 26	70 11	Cape Lisburne....	69 5	166 22
Pisca	13 45	76 10	Icy Cape.....	70 29	161 42
Callao	12 1	76 59			
Truxillo	8 9	78 51	Juan Fernandez ..	33 45S.	78 51
Paita	5 13	80 57	Galapagos, Albe-		
Guayaquil	2 18	79 43	marle Island ..	0 30	91 30
Cape Lorenzo	1 12	80 48	*Islands in the Atlantic.*		
Cape St. Francisco	0 33N.	79 56	Feroe Islands,		
Cape Corientes....	5 26	77 19	Fugloe.....	62 16	6 0
Panama	8 56	79 30	Bermudas, George		
Malpelo Island ..	4 14	80 37	Town	32 2	64 33
Quibo Island	6 58	81 57	Azores Pico.....	38 27	28 28
Cape Blanco	9 15	85 28	—— Angra, Ter-		
Leon	11 50	87 9	ceira.....	38 38	27 12
Guatimala	13 54	90 53	Madeira, Funchal	32 37	17 5
Acapulco.....	16 55	100 44	Canaries, Teneriffe		
Cape Corientes ..	20 32	105 35	Peak.....	28 15	16 45
St. Blas	21 30	104 46	—— Grand		
Cape St. Lucar ..	22 44	109 54	Canary, Palma..	28 8	15 48
St. Francisco Bay.	30 23	115 36	Cape Verd Islands		
Port Diego	32 42	116 53	—— Porto Praya .	14 54	23 30
Monterey.....	36 36	121 34	—— Fogo	14 57	24 22
Port St. Francisco.	37 48	122 7	Fernando Norhonha	3 55S.	33 35
Cape Mendocino .	40 19	124 7	Ascension	7 55	14 15
Port Trinidad	41 3	123 54	St. Helena, James		
Cape Blanco.....	42 52	124 25	Town	15 55	5 43
Cape Foulweather	44 49	123 55			
Grays Harbour ..	47 0	123 53	*Islands in the Great Southern Ocean.*		
Cape Flattery	48 23	124 22	Tristran d'Acunha	37 6	11 44E.
Nootka Sound....	49 34	126 28	Kerguelens Land,		
Queen Charlotte's Island, Cape St. James	51 57	131 6	Christmas Har- bour.....	48 41	69 2
Norfolk Sound ..	57 2	135 34			

TABLE OF GEOGRAPHICAL POSITIONS *(Continued)*.

Place.	Latitude.	Longitude.	Place.	Latitude.	Longitude.
British Islands.	North.	West.	*British Islands.*	North.	West.
Land's End	50° 4′	5°41′	St. Ives	50°13′	5°28′
Penzance.....	50 7	5 30	Padstow	50 35	4 55
Lizard Point	49 58	5 11	Mort Point	51 11	4 13
Falmouth, Pendennis Castle.....	50 9	5 2	Lundy Island	51 10	4 38
Plymouth Dock ..	50 22	4 10	Bristol	51 27	2 35
Eddystone Light..	50 11	4 15	MumblesHeadlight	51 34	3 57
Dartmouth	50 20	3 35	Milford Haven, St. Anne's Lights..	51 40	5 9
Exmouth	50 37	3 21	St. David's Head..	51 54	5 17
Portland Lights ..	50 31	2 26	Cardigan	52 7	4 42
Poole	50 42	1 58	Holy Head Island, West end.....	53 18	4 36w.
Dunnose, Isle of Wight	50 37	1 12	Liverpool.....	53 22	2 57
Portsmouth.....	50 47	1 6	Lancaster	54 2	2 44
Brighton	50 49	0 7	Whitehaven	54 33	3 27
Beachyhead.....	50 44	0 15 E.	Mull of Galloway	54 38	4 50
Dengeness Light..	50 55	0 58	Loch Ryan	55 6	4 57
Dover Castle	51 8	1 19	Mull of Kintyre..	55 17	5 41
Deal Castle	51 13	1 24	Cape Wrath	58 36	4 56
North Foreland Light	51 22	1 26	Farout Head	58 37	4 45
Greenwich Observatory	51 28½	0 0	Dunnet Head	58 42	3 29
London, St. Paul..	51 31	0 5¼w.	*English Islands.*		
Orfordness Lights.	52 5	1 34E.	Scilly, St. Agnes Light	49 53	6 19
Lowestoff Lights..	52 29	1 46	Isle of Man, Douglas	54 9	4 25
Yarmouth	52 37	1 43	Guernsey, St.Pierre	49 25	2 33
Lynn Regis.....	52 46	0 25	Jersey, St.Aubin..	49 12	2 11
Spurn Lights	53 37	0 12	Casket Lights	49 44	2 26
Flamborough Head	54 8	0 2w.			
Scarborough	54 18	0 24	*Scottish Islands.*		
Whitby	54 28	0 36	Hebrides, Coll Island.....	56 42	6 20
Entrance of the Tees.....	54 38	1 5	South Uist	57 5	7 10
Tinmouth Light..	55 1	1 24	Butt of Lewis ..	58 29	6 12
Fern Island Light	55 37	1 38	Orkneys, Pentland Skerries	58 43	3 3
Berwick	55 46	2 0	Mainland, Stromness	59 0	3 25
St. Abb's Head ..	55 55	2 8	Zetland Lerwick	60 9	1 6
May Island, Light	56 11	2 32	Foul Island	60 7	2 4
Edinburgh	55 36	3 12	Lambaness	60 53	0 58
St. Andrews	56 41	2 47			
Dundee	56 28	2 58	*Ireland.*		
Montrose.....	56 42	2 28	Clare	52 51	9 32
New Aberdeen ..	57 9	2 9	Limerick	52 42	9 11
Kinnaird's Head ..	57 42	2 1	Loup Head Shannon	52 37	10 24
Inverness.....	57 31	4 12			
Duncan's Bay Head	58 40	3 8			

TABLE OF GEOGRAPHICAL POSITIONS *(Continued)*.

Place.	Latitude.	Longitude.	Place.	Latitude.	Longitude.
Ireland.	North.	East.	*Ireland.*	North.	West.
Dunmore Head ..	52°13′	10°54′	Wicklow Light ..	52°59′	6° 1′
Skellig Rocks	51 52	10 59	Dublin.....	53 21	6 16
Cods Head Kenmare River....	51 43	10 28	Drogheda	53 44	6 12
Dursey Island....	51 37	10 36W.	Belfast	54 35	5 57
Bantry Bay, Sheep's Head	51 34	10 4	Tor Head.....	55 12	6 1
Cape Clear	51 22	9 37	Giant's Causeway.	55 15	6 29
Kinsale Light....	51 35	8 29	Galway	53 28	9 13
Cork	51 54	8 28	Broadhaven	54 28	10 18
Youghall.....	51 43	7 48	Sligo	54 22	8 41
Waterford	52 13	7 10	Donegal	54 41	8 10
Carnsore Point....	52 11	6 18	Loch Swilly Entrance	55 17	7 33
Wexford	52 22	6 19	Mullin Head	55 21	7 25
			Londonderry	55 0	7 15

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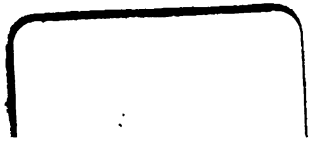
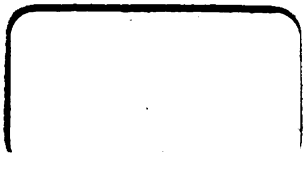
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